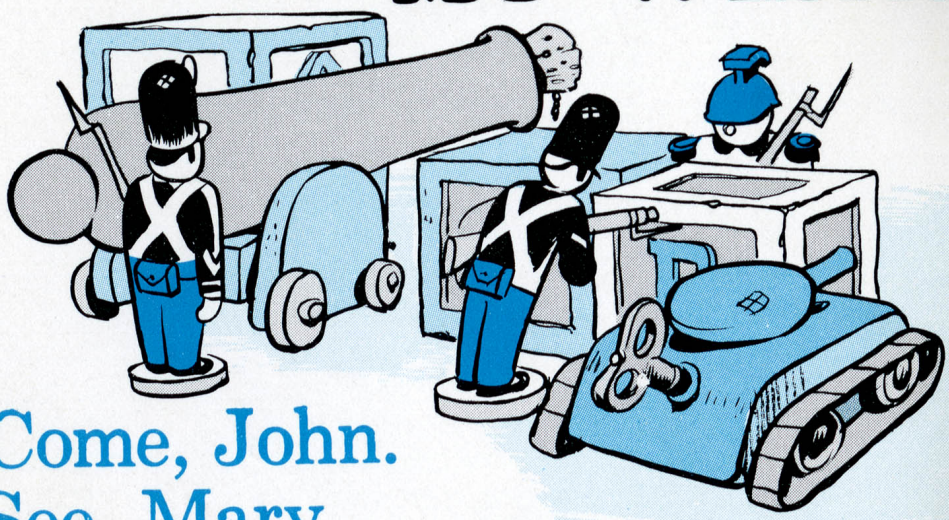
Issue 111

PS

1962 Series

THE PREVENTIVE MAINTENANCE MONTHLY

MY WEAKLY



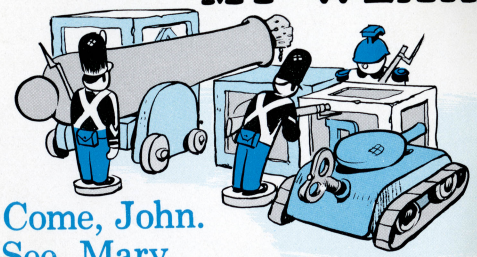
Come, John.
See, Mary.
Come and see the toy soldiers.
See the soldiers' tanks. See the soldiers' guns.
Watch the tanks go!
Go, go, go.
See the guns shoot!

There are other soldiers. They are over there. Their guns and tanks are still. Their guns are rusted. Their tanks are broken.

Broken, and hurt by rust.
Rust, wear, rust!

MY WEAKLY READER

LESSON NO. 1



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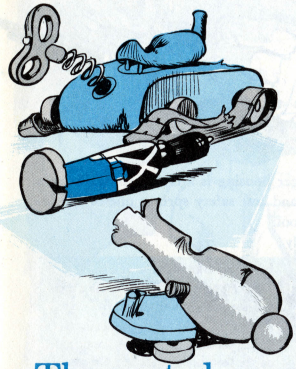

The rusted guns will not shoot. The broken tanks will not go. We must pretend those soldiers are dead.

Dead, dead, dead!

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PS wants your ideas and contributions, and is glad to answer your questions. Names and addresses are kept in confidence. Just write to:

Sgt Half-Mast,
PS Magazine,
Raritan Arsenal,
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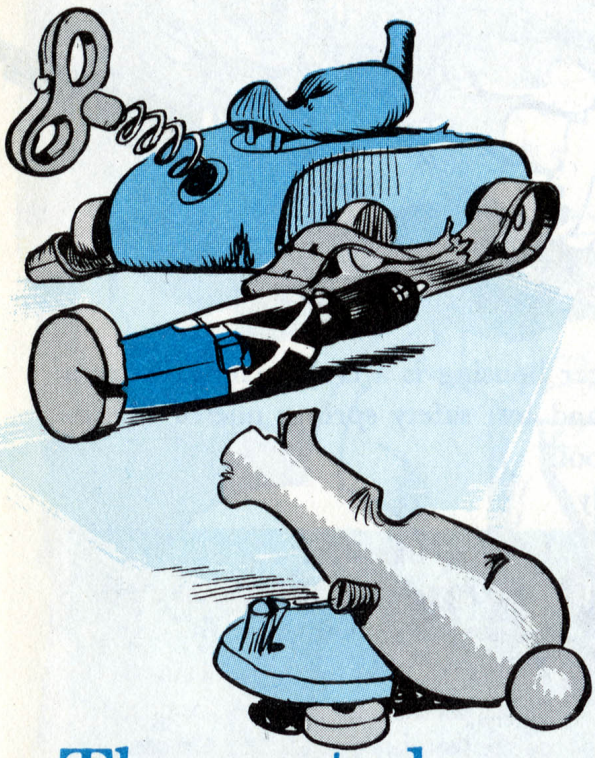
READER

LESSON NO. 1



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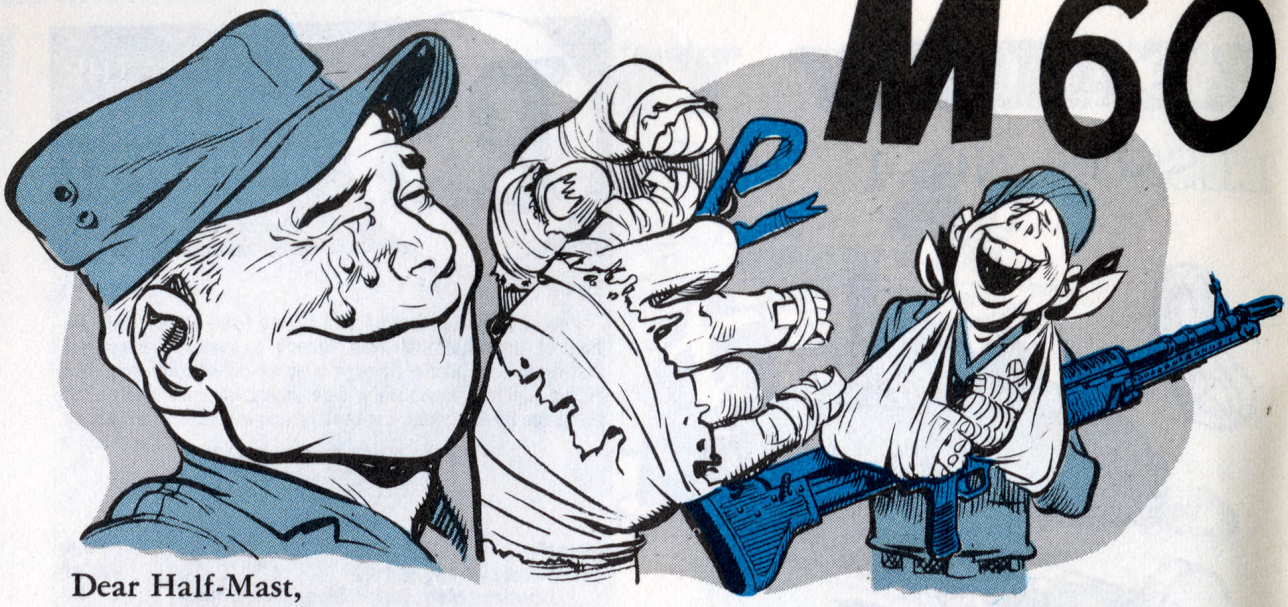
M60



Dear Half-Mast,

Getting the safety out of the M60 trigger housing is a trying chore. After a few torn finger nails, skinned knuckles, and lost safety springs one of the instructors here introduced us to a simple tool.

It does the job safely, easily and quickly.

The tool can be made out of any short 6-inch piece of tough steel rod, or an old screw driver blade.

A six-inch length of strong steel rod with its front end ground to a flat edge. Center of flat edge is filed out to form a pronged (U) end. Prongs are 1/4-inch deep and 1/8-inch apart.

(NOTE: length of prongs is not important. But opening between points must be just wide enough to sit on the shoulders of the plunger).

It's used like this:

1. Rotate the safety up (this gives you a gap underneath to insert the tool).
2. Slip the tool under the trigger housing retaining pin and place the tool's tiny prongs on the shoulders of the safety plunger.
3. Press down on the handle of the tool. Now with the spring and plunger pressure released (as you press down) the safety pulls out easily. The tool gives you the needed leverage to break the spring's tight hold and also keeps the spring and plunger from flying wild when the safety's pulled out.

TO REPLACE THE SAFETY:

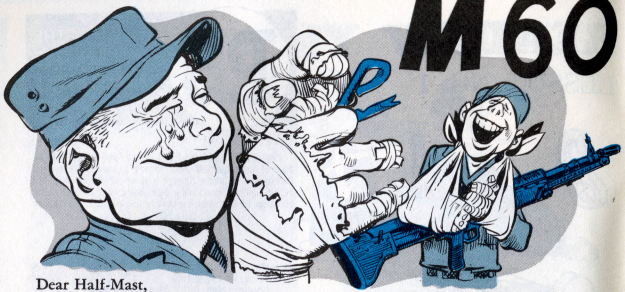
1. Put the safety spring and plunger in the housing and grip the plunger shoulders with the tool point as before.
2. Press down on the tool handle and at the same time replace the safety in the trigger house.

Now remove the tool and rotate the safety down, and that's it.

The tool makes a pesky job very easy.

SFC R. A.

M60



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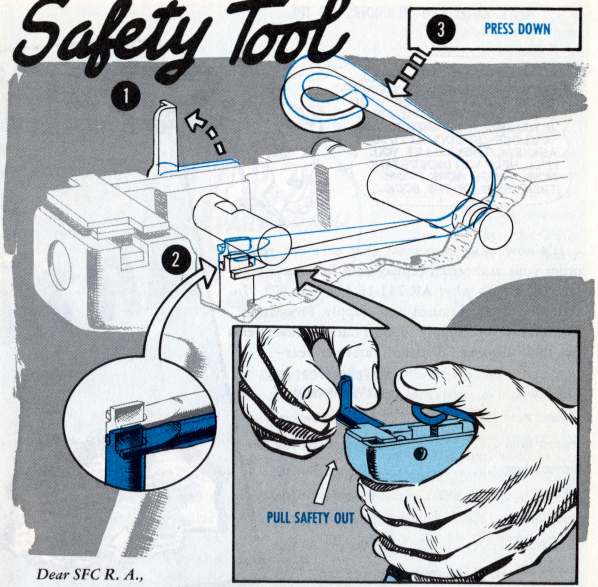


Dear SFC R. A.,

OK, but did you ever try it with the buffer yoke?

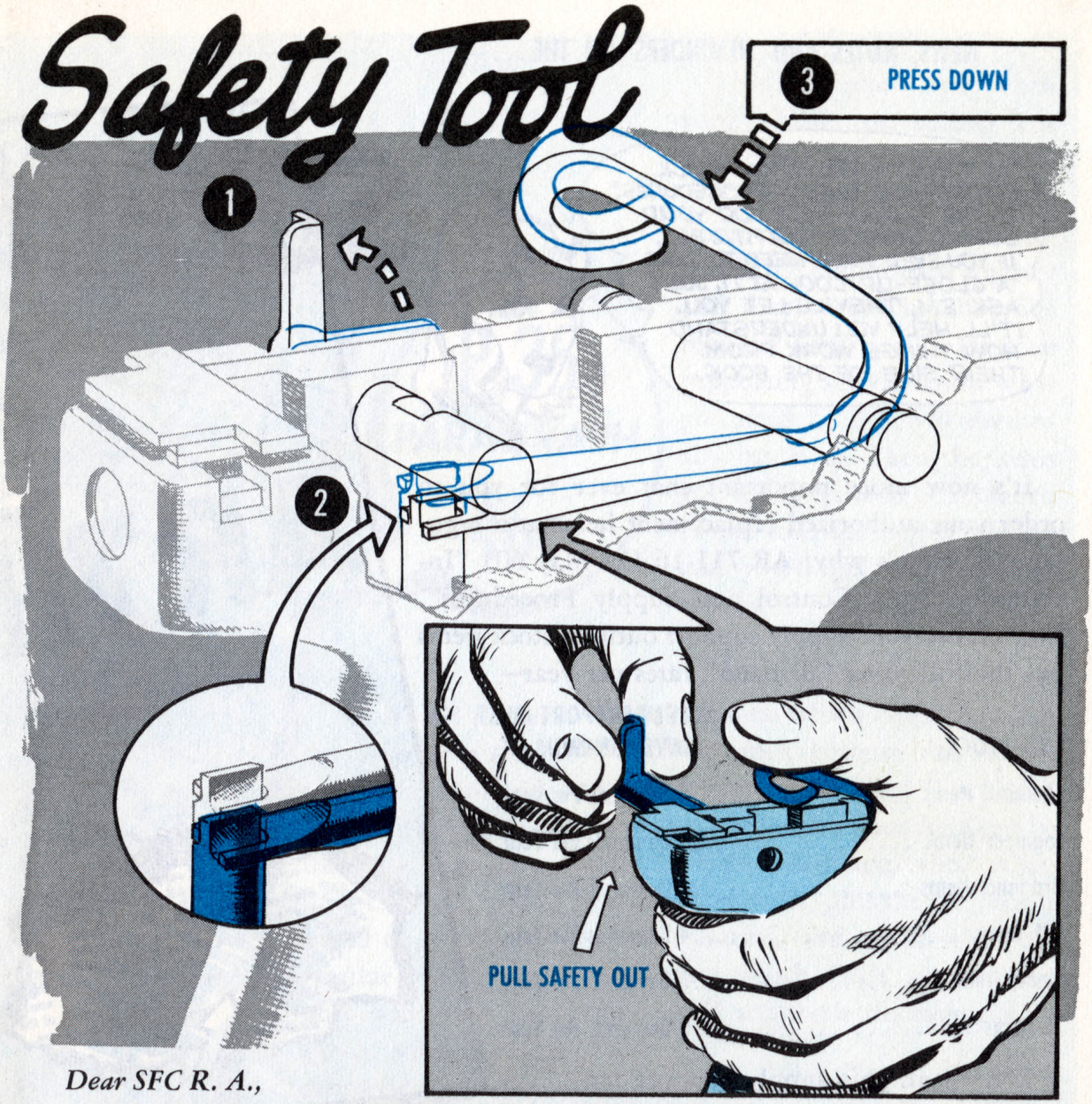
Pull out on the safety as you work it back and forth. Slip yoke prong in space between the housing and the end of the safety, and hold plunger down as you pull safety all the way out.

To replace: Insert plunger and spring into housing. Push safety into housing until it butts up against plunger. Now, as you press plunger with yoke, push safety in with your thumb.

As the end of the safety clears the top of the plunger, you can guide the safety all the way into its recess with the yoke. Rotate the safety forward, and it's done.

Half-Mast

Safety Tool



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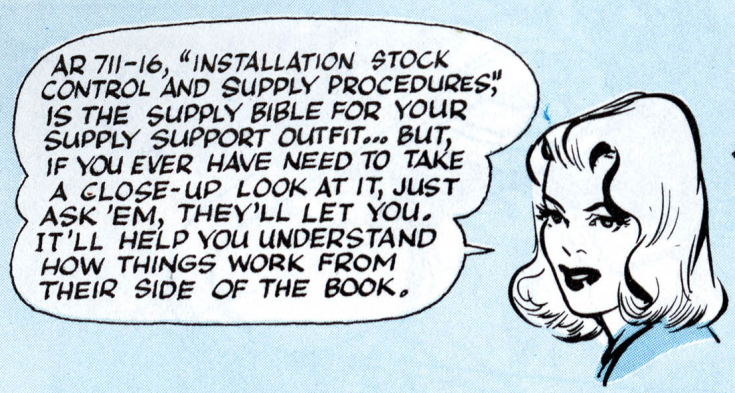
SUPPLY AR 711



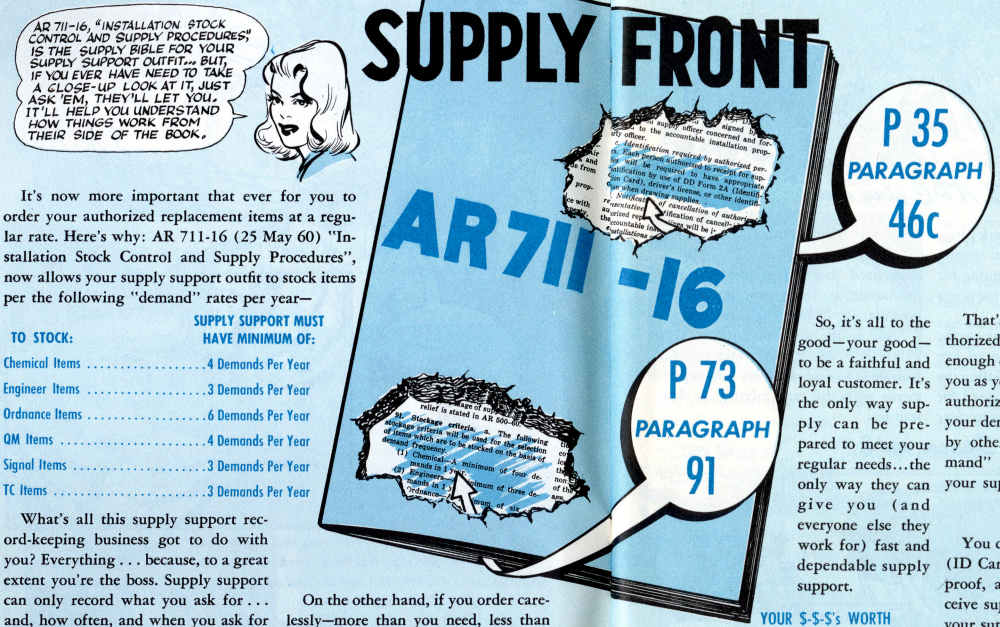
It's now more important that ever for you to order your authorized replacement items at a regular rate. Here's why: AR 711-16 (25 May 60) "Installation Stock Control and Supply Procedures", now allows your supply support outfit to stock items per the following "demand" rates per year—

TO STOCK:	SUPPLY SUPPORT MUST HAVE MINIMUM OF:
Chemical Items	4 Demands Per Year
Engineer Items	3 Demands Per Year
Ordnance Items	6 Demands Per Year
QM Items	4 Demands Per Year
Signal Items	3 Demands Per Year
TC Items	3 Demands Per Year

What's all this supply support record-keeping business got to do with you? Everything . . . because, to a great extent you're the boss. Supply support can only record what you ask for . . . and, how often, and when you ask for it.

It works like this. By ordering your needs regularly (per your local supply SOP) your supply support will have less sweat setting-up their own stockage lists, working out requisitioning objectives, and maintaining honest-to-goodness operating levels.

On the other hand, if you order carelessly—more than you need, less than you need—or, just whenever you feel like it, you throw supply a big, fat, phony curve, which can create un-realistic demands all the way up and down the supply system. You can actually cause them to over-stock, under-stock, or even discontinue **your** most needed items.



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So, it's all to the good—your good—to be a faithful and loyal customer. It's the only way supply can be prepared to meet your regular needs...the only way they can give you (and everyone else they work for) fast and dependable supply support.

YOUR $-$-$'s WORTH

Last, but not least—in addition to making for more dependable supply support for all concerned, keeping true operating levels at all times will help to put more go-power in a customer's operating fund.

This is especially true when your ACMS cost ceiling (or whatever your command may call the local funding limitations) starts getting low towards the end of each quarter and fiscal year. Submit your requests anyway . . . let your supporting activity know what you need . . . $ $ will eventually catch up. Then the items you asked for will be included in the over-all supply picture and you'll get your supplies sooner.

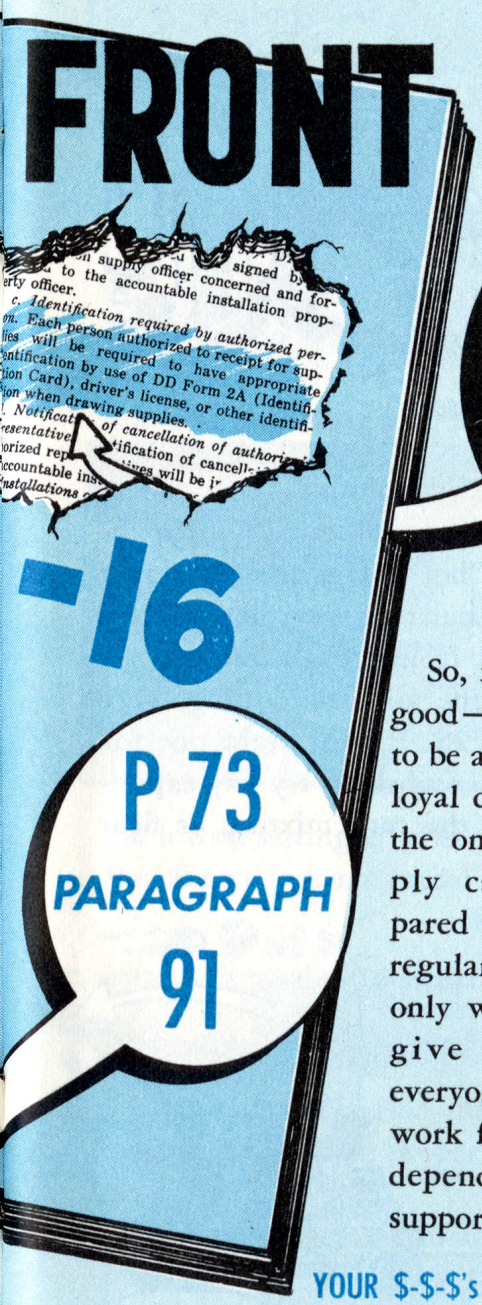
ABOUT FRINGE ITEMS

That's an item which supply isn't authorized to stock because there's not enough demand for it. They'll get it for you as you need it. A fringe item can be authorized for stockage, tho, when your demand for it, plus the calls for it by other outfits, add up to the "demand" rate which OK's an item for your supply support's stockage list.

YOUR ID

You can now use your DD Form 2A (ID Card), driver's license, or similar proof, as identification when you receive supplies...provided, that is, that your supply officer has sent the supply people a DA Form 1687 (Receipt for Supplies) authorizing you to sign for unit supplies.

When you shop at a self-service supply-center, of course, you may have to flash a couple of different things—like a charge plate, signature card, and maybe even a work order number.



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46c

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Connie Rodd's "SHORT 'N SWEET DEPT."

M113 APC plug news

Having trouble with the spark plugs on your M113 APC? When you operate at slow speeds or idle your engine for long periods, carbon forms on the plugs and fouls them.

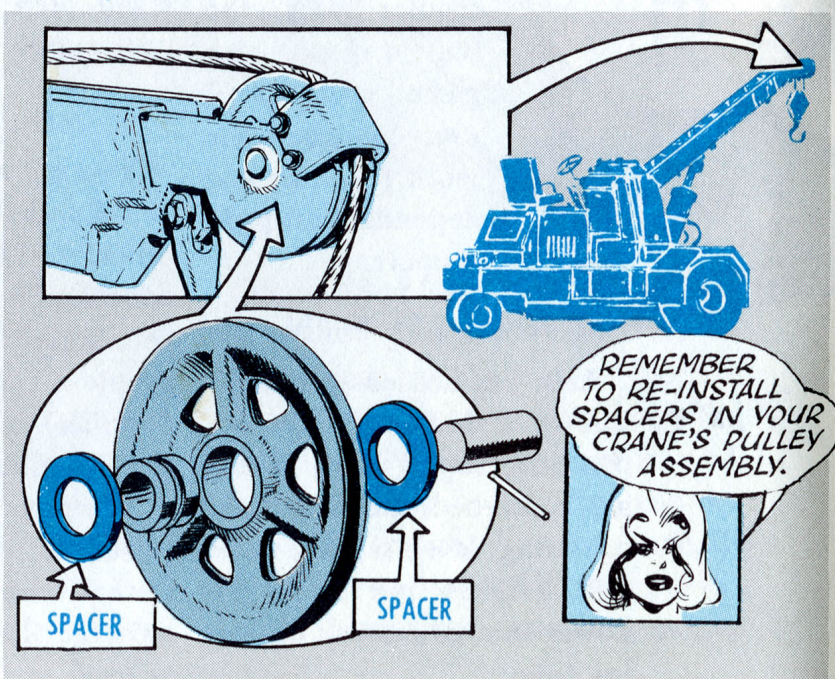
The cure is simple. Run your engine at 2,500-3,000 RPM for two to five minutes any time you've been idling the engine or running it at slow speed for 30 minutes or more. That'll help clear the carbon off the plugs.

Some outfits have been putting in unauthorized "hot" plugs to keep down the carbon, but that way they risk engine damage from pre-ignition.

Stick to the authorized plug, FSN 2920-679-9728. It's the right one for your M113. And don't try any experiments with the carb mixture or float settings.

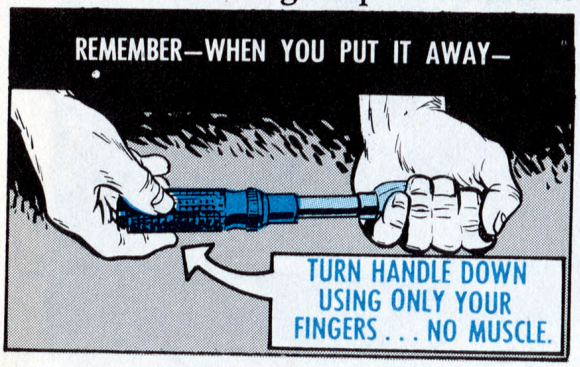
Spacer out?

It may be a pain in the neck sometimes to get the spacers back in place after you've taken your NC-10 or MR-100 crane's boom sheave and load block apart. But don't ever leave them out. Without the spacers, the sheaves'll get squeezed in so tight against the blocks that they won't be able to turn with ease—and your crane'll be out of business.



Easy does it!

There's no gettin' away from the fact that you should turn the handle of your non-dial indicating torque wrenches to



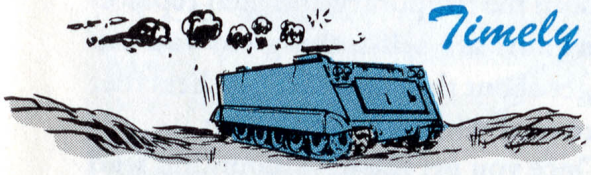
the lowest setting after each use. But there's just one catch!

When you turn the handle down—don't use force. There's a spiral stop pin in the wrench handle that acts as a resistant point **only**. That's just to tell you when you've reached the low torque setting.

If you put some muscle on that handle while you're backing off, you can shear that pin. If this happens, the handle will come loose from the body of the wrench and you'll get any torque but the one you want.

So, remember—when you turn down your wrench handle—easy does it!

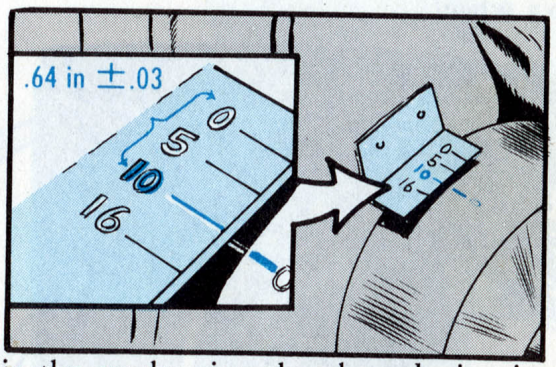
Timely timing



Like with any engine, the M113 APC engine's gotta be in proper time or pay the penalty.

The designers say that the M113 engine'll now be set to the new 10° mark rather than the 16° BTDC it had at the start. The ball bounced a coupla times, but 10° is it—the ones coming out of production now are set at 10° BTDC starting with engine serial number 3866.

Setting it to 10° BTDC'll reduce the internal pressures and energy produced



in the combustion chambers during ignition that is raising havoc with the pistons.

Some older M113's may not have a 10° mark. So-o-o-o, get your marking bracket fixed up like this and time 'em to 10°. . . right pronto or sooner.

Check that change

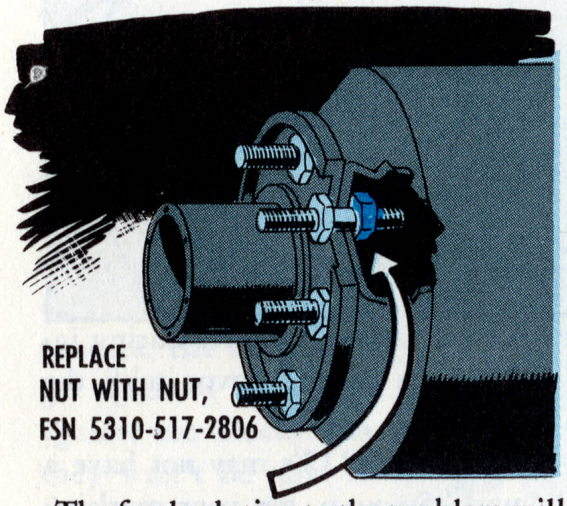
Watch those wheels.

Yup, that's THE word on all dual-wheel jobs—but this time the tip's aimed to you Nike guys who have just latched on to the new XM529 guided missile trailer.

Change 1 (7 Nov 61) to TM 9-2330-255-14 spells out new mounting stud nut requirements and other changes in the wheel assembly that are strictly top priority babies.

Early models of the trailer came up with loose wheel problems because the nut, FSN 5310-655-9286—used to lock mounting stud to the hub assembly—just didn't do the job. It made for thread failure when the outer stud nuts were torqued.

So-o-o, as a temporary field deal, replace the nut you now have with nut, FSN 5310-517-2806, which you can get from Ordnance. Torque this nut to 175-200 ft-lbs and don't forget there're six to a wheel.

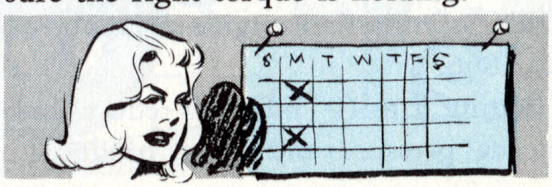


The final solution to the problem will be nut, FSN 5310-524-0342, which you'll be able to get for replacement as required . . . once it works its way into the supply system.

Both the temporary and final replacement nuts are self-locking—so you can forget about the ¾-in lock washers that were used with the original nut.

Once you get the new mounting stud nuts torqued right—175-200 ft-lbs—you can turn your attention to torquing the inner cap nut and outer nut on the mounting bolt.

On the XM529 trailer you torque all wheel stud nuts to 450-500 ft-lbs. And you check the torque once every two weeks on a new vehicle or until you're sure the right torque is holding.



Dual wheel torquing

Dual-torque talk has a way of getting fouled up—so here's a little reminder on the right way to torque the inner and outer cap nuts on your dual wheeled vehicles.

Just remember two things:

The inner cap nut keeps the inner wheel tight.

And the outer nut takes care of the outer wheel.

When mounting wheels, first slide the inner wheel over the mounting studs.

Then screw the inner cap nuts over the mounting studs and torque them to 450-500 ft-lbs.

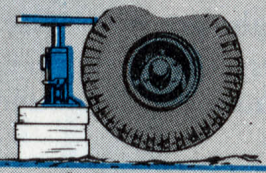
Next, mount the outer wheel over the inner cap nuts.

Screw the outer nuts over the inner cap nuts and torque them to 450-500 ft-lbs.

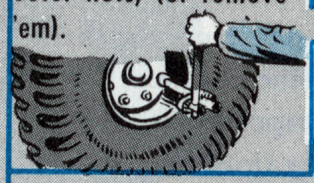
When checking torque, and it doesn't hurt to do it more often than the book calls for, you've gotta loosen the outer nut to check the inner cap nut—otherwise it's a waste of time and you're headed for sure trouble.

DO IT BY THE NUMBERS, LIKE SO.

First, jack up the truck.

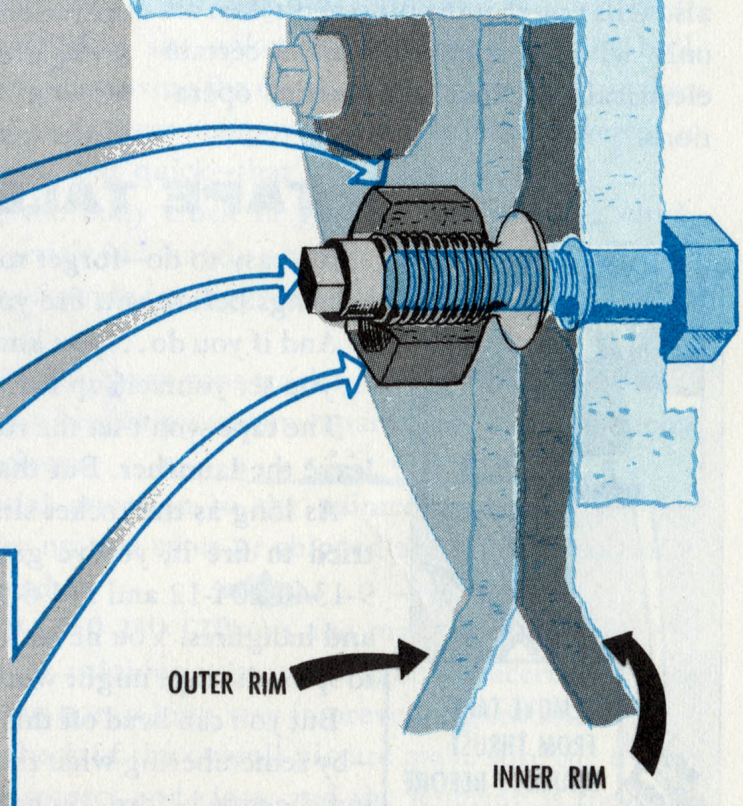


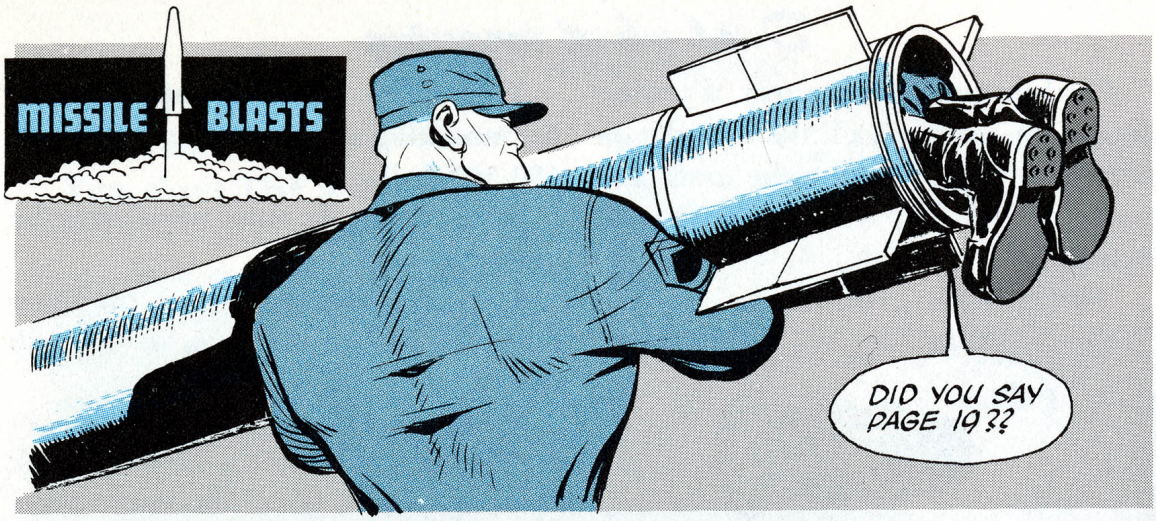
Second, loosen up the outer nuts, (or remove 'em).



Third, torque all inner cap nuts to 450-500 ft-lbs.

Fourth, torque all the outer nuts to 450-500 ft-lbs.

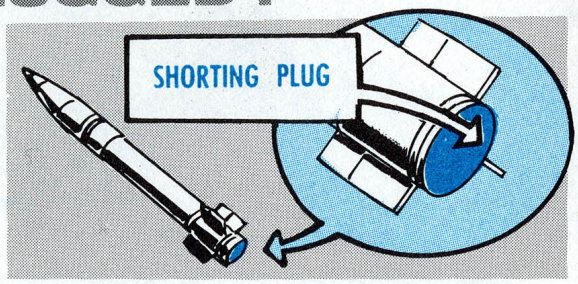




PLUG PLUGGED?

It's there in heavy type for Littlejohn crews to see.

That's the warning on page 19 of TM 9-1340-204-12—the one that tells you when you inspect the rocket motor you want to check to make sure the shorting plug is installed on the rocket motor igniter the right way. The warning also tells you that the plug gets taken off only when you have to make certain electrical checkout and prefire operations.



If you don't have the plug in place, except for the checkout and prefire operations, you might get in trouble. Stray electrical currents could start moving around—causing pre-ignition of the igniter.

TAPE TALE

It's easy to do—forget to pull the tape from the thrust bearings before you fire your Littlejohn rocket.

And if you do . . . you know what happens. That's right . . . you set yourself up for a real hairy situation.

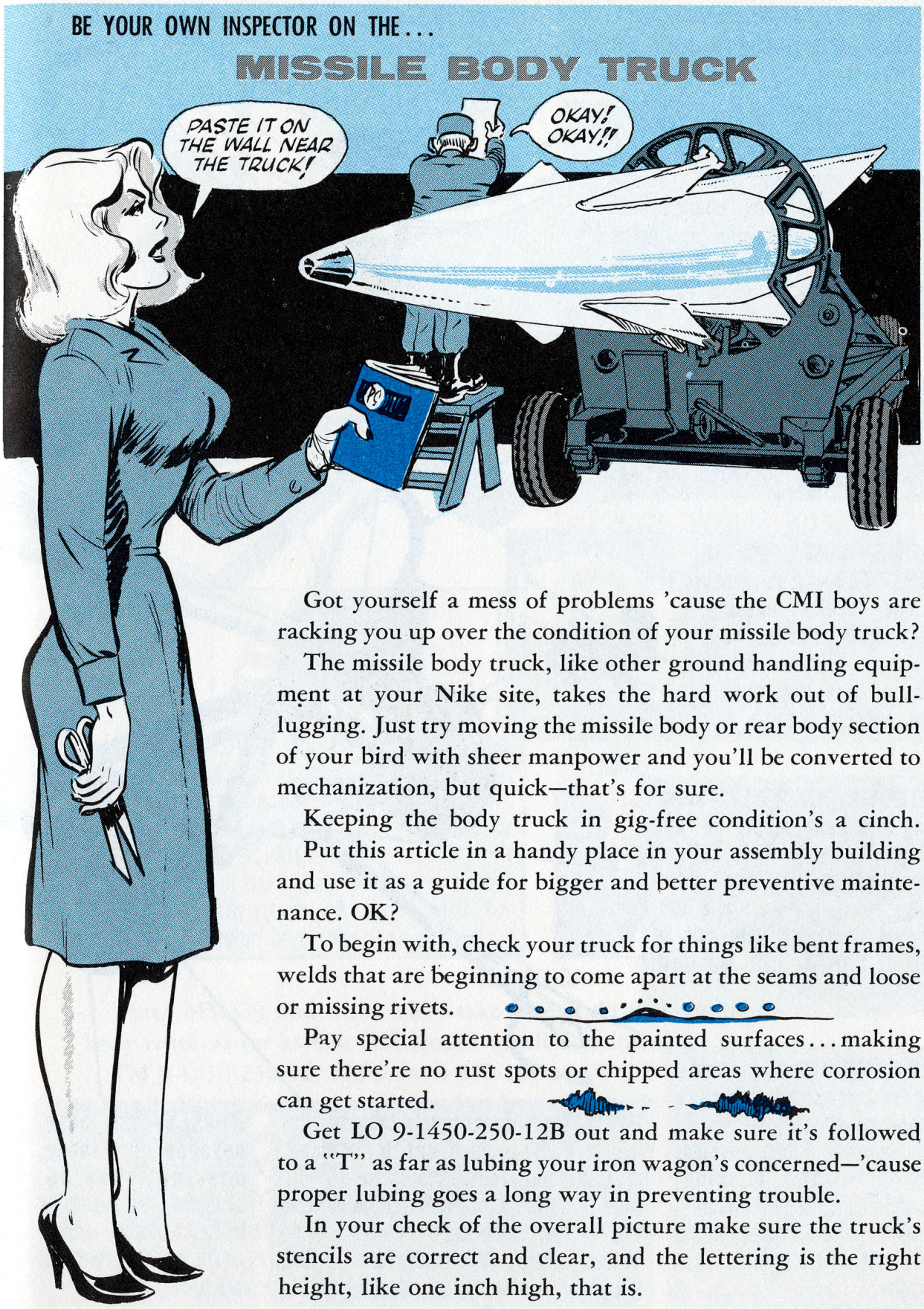
The tape won't let the rocket spin . . . and no spin . . . no leave the launcher. But that's only part of the tale.

As long as the rocket sits on the launcher after you've tried to fire it, you've got to go along with what TM 9-1340-204-12 and FM 6-57 say about handling misfires and hangfires. You never know . . . with the rocket trying to spin, the tape might work itself loose. And then—Bam!

But you can head off this kind of trouble before it starts—by remembering what the TM and FM say about removing the tape before you go to fire your Littlejohn.

BE YOUR OWN INSPECTOR ON THE . . .

MISSILE BODY TRUCK



Got yourself a mess of problems 'cause the CMI boys are racking you up over the condition of your missile body truck?

The missile body truck, like other ground handling equipment at your Nike site, takes the hard work out of bull-lugging. Just try moving the missile body or rear body section of your bird with sheer manpower and you'll be converted to mechanization, but quick—that's for sure.

Keeping the body truck in gig-free condition's a cinch.

Put this article in a handy place in your assembly building and use it as a guide for bigger and better preventive maintenance. OK?

To begin with, check your truck for things like bent frames, welds that are beginning to come apart at the seams and loose or missing rivets.

Pay special attention to the painted surfaces . . . making sure there're no rust spots or chipped areas where corrosion can get started.

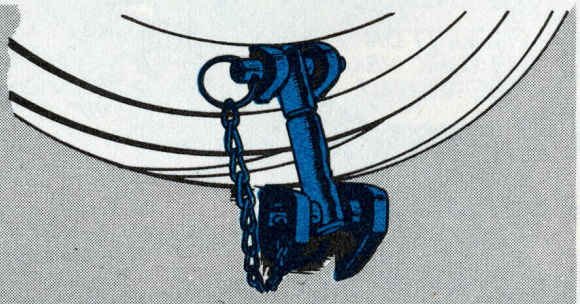
Get LO 9-1450-250-12B out and make sure it's followed to a "T" as far as lubing your iron wagon's concerned—'cause proper lubing goes a long way in preventing trouble.

In your check of the overall picture make sure the truck's stencils are correct and clear, and the lettering is the right height, like one inch high, that is.

PS MORE

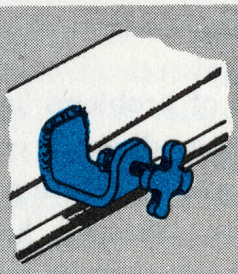
Now hit these checkpoints. Like always, items that can get your major gig points are in **bold type.**

ROTARY RING LOCK GROUP—**Shoulder pin** bent, **missing,** screws stripped, sheared; **quick release pin** twisted, **missing, chain broke, missing,** not attached; connector pin bent, screws burred; **spring pin missing,** binds, loose; chain **missing,** broken, welds cracked.

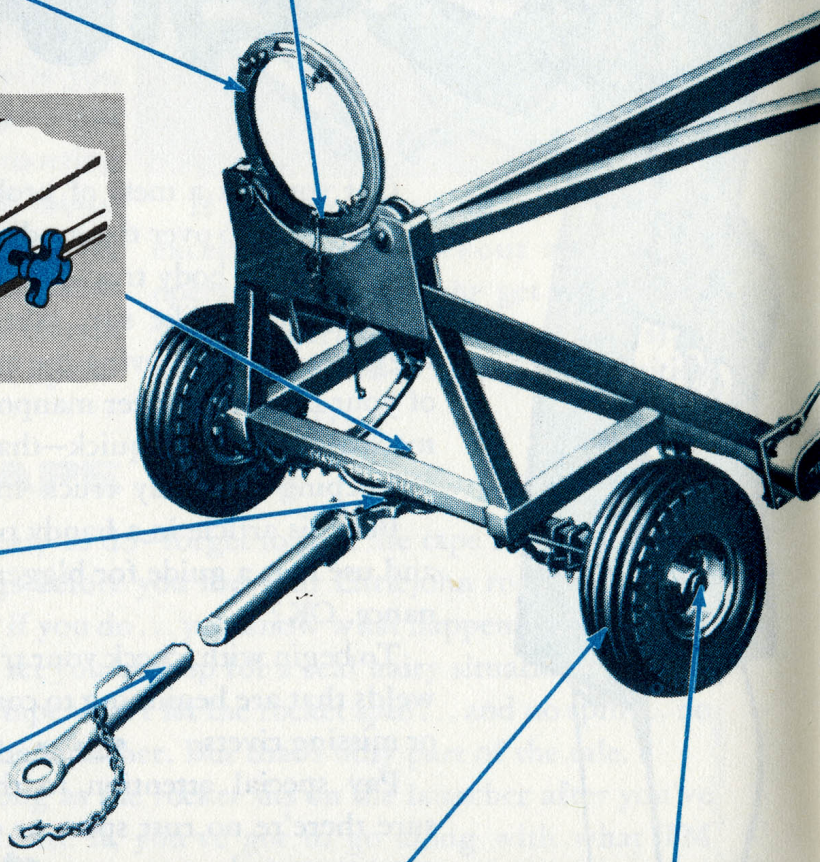


ROTARY RING—**Assembly battered,** twisted, loose; ring bolt bent, sheared, missing; **knobs** loose, **missing;** spring pin loose, **missing.**

ROTARY RING STOWAGE BRACKET—**Assembly loose,** twisted, **missing;** hexagon bolt burred, loose, stripped; **knob loose, missing; spring pin missing,** loose.



STEERING ASSEMBLY—**Steering arm bent, loose;** tie rods loose, twisted, out of adjustment; cotter pins loose, **missing;** hexagon nuts loose, battered, missing; **axle out of line;** center pin warped, twisted, binds.



TOW BAR—Bent, battered, welds cracked; **storage hook missing,** loose; safety chain broke, loose, **missing;** hook twisted, **missing;** quick release pin **missing,** twisted, bent; safety chain not attached, **missing,** loose.

TIRES—**Worn dangerously smooth,** flat; treads, badly bruised, **cut to fabric;** tire pressure incorrect, (should be 75 PSI); tube punctured, cut leaking; valve leaking, broke; valve caps missing, loose; stones, glass, nails imbedded in tire; flap, worn, **missing,** inserted wrong.

WHEELS—Rim **loose; hexagon nuts loose, missing, sheared,** stripped; hub assembly loose; bumper rubber worn, missing; washer worn, missing.

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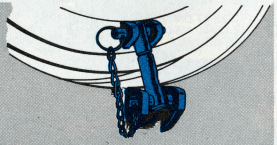

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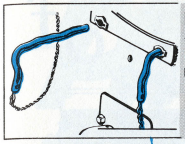
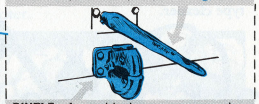


LOCK PIN ASSEMBLY—**Pin** twisted, **bent, missing; chain** broken, unattached, **missing,** links open; **cotter pin** loose, **missing;** spring **pin loose, missing.**

REFLECTORS—Broken, dirty, discolored, **missing;** assembly loose, screws loose, missing, stripped.

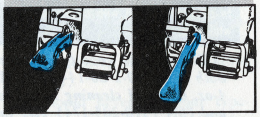
INDEXING BRAKE—**Handle broken, spins; spring pin missing,** loose; camshaft battered, binds, hard to turn; brake shoe warped, bent; brake lining worn, **loose,** chewed up; brake spring **missing,** worn.



PINTLE—Assembly loose, screws missing, loose, sheared; hook battered, twisted out of shape; **latch broken; spring missing,** weak.

ROTARY TIRE WHEELS—Cracked, worn, **missing,** do not turn easily; bearing cone and rollers worn, **missing,** hexagon bolts loose, **missing;** packing loose, missing. (If your truck has the earlier rubber rotary tire wheels, check for chewed up or worn out rubber).

PARKING BRAKES—Assembly loose, broken; pedal bent out of shape; ratchet worn, loose, gears stripped; **pawl missing,** worn; torsion spring weak, missing; **brake release lever** worn, sticks, **missing.**



PUB SCOOP

Three MWO's and three TM's take care of the publication list on the missile body truck as far as first and second echelon maintenance goes.

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The MWO's shape up like this:

MWO ORD Y87-W3 (May 1959) applies to the installation of secure points.

MWO ORD Y87-W4 (Jul 1959) changes the tow bar stops and hooks.

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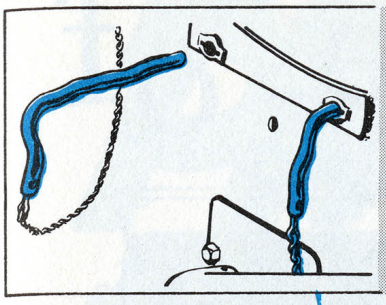

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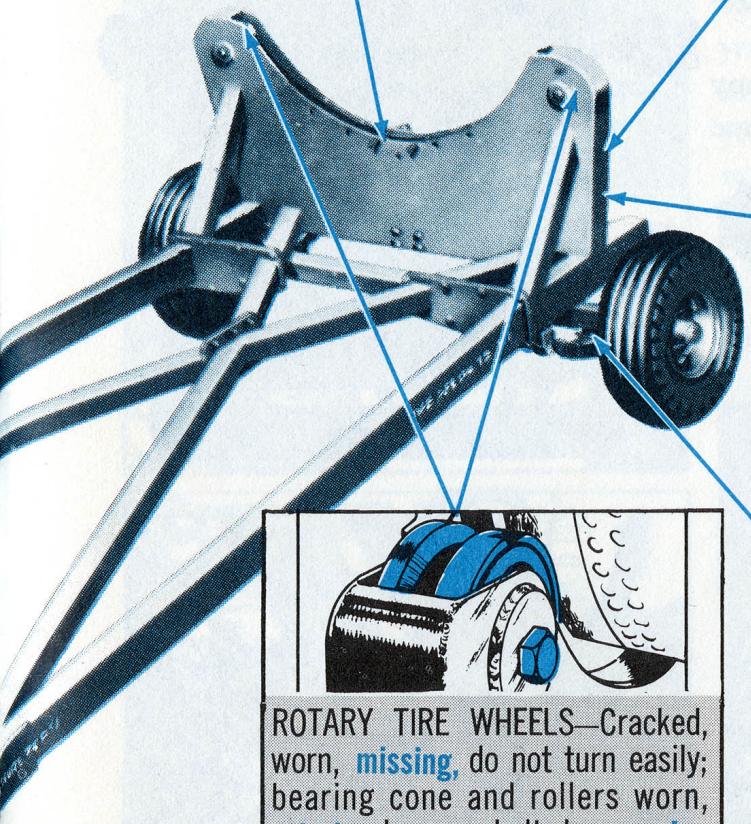

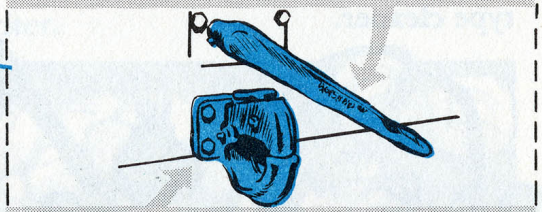

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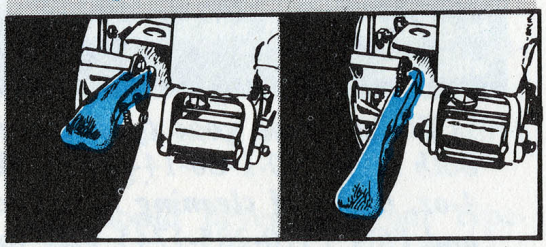

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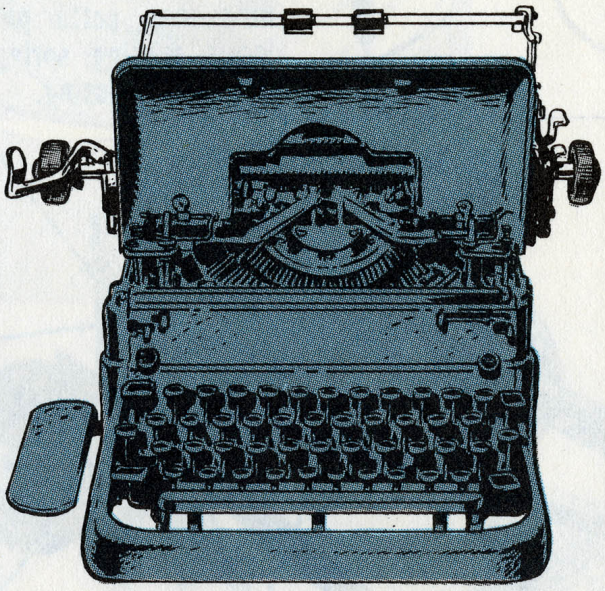
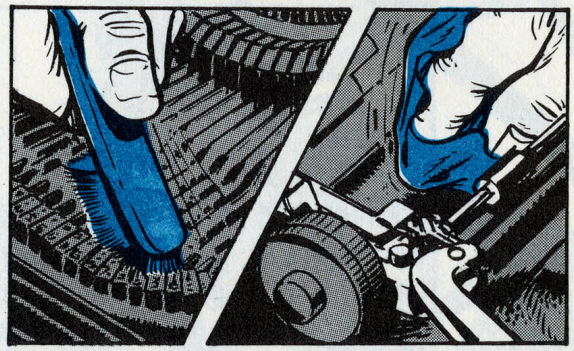
Rx FOR TYPEWRITERS... A dose of

Two C's — Caring and Cleaning — that's all the PM you the operator— need to give your typewriter. Administered before, during and after operations, of course.

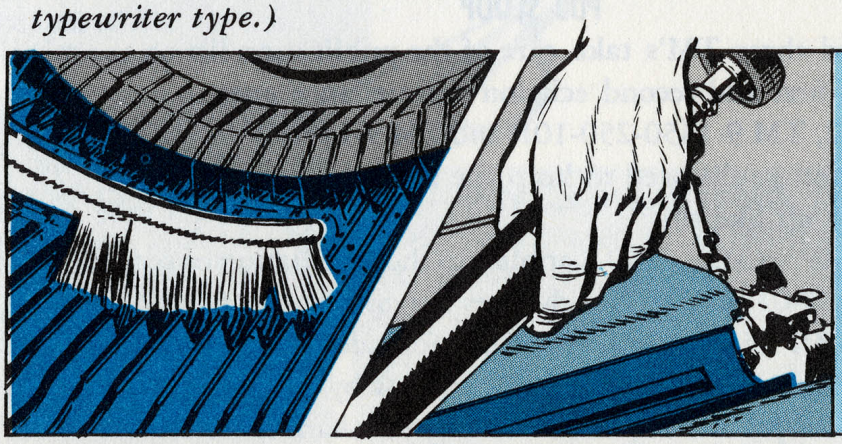
Which means you don't need any tools. Just an eraser, a brush and some type cleaner.



Before starting to peck away, clean the type with a cloth or brush slightly moistened with an approved type cleaner. You want to clean the type face often if you're cutting stencils or using heavily-inked ribbon. It's a good idea to clean the platen with alcohol once in a while, too.



(There're two good type cleaners in the supply system and you'll find both in SM 10-1-C6-14-SL (29 May 61). FSN 7510-527-1458 fetches a 4-oz. bottle of cleaning liquid for typewriter type (Fed Spec P-T-936b) and FSN 7510-285-1745 gets you one box of plastic rubber cleaner for typewriter type.)



Next, dust and brush the typewriter all over, especially the type and key rods and under the roller. (You take the platen off to brush this spot).

℞ FOR TYPEWRITERS . . .

A dose of PM

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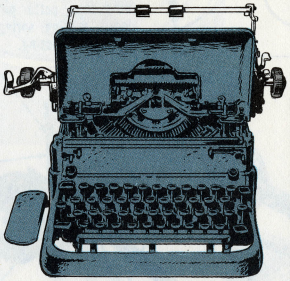

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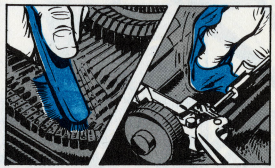

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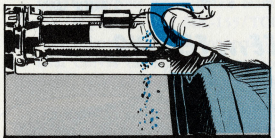
When you type, use two sheets of paper—one for backing. Keep an eye open for shortcomings like loose keys, bent rods, faulty back-spacing, etc.

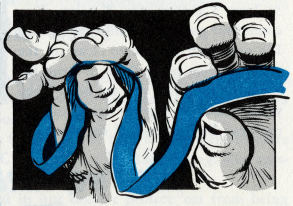


If you have to erase, be sure you push the carriage all the way to the right or left. You don't want to get any crumbs in the innards.

After you're through typing, pull the paper release lever forward (to the RELEASE position). And don't forget to put the cover back on. Be sure power is shut off on an electric typewriter before you cover it. Keep your typewriter covered every minute it's not being used.

One last bit: If you notice anything wrong with your machine, put your hands in your pocket and whistle for the guy with the tools. Don't try any jackleg fixes yourself. AR 750-30 (31 Aug 61) tells you who's responsible for what on your typewriters and office machines.

Of course, when you change the ribbon, you do it real careful-like. Get one that's made just for your machine if you can. But no sweat. All ribbons come in ½-in widths these days, so if you're stuck with one on the wrong kind of spool, you can re-wind it on your old spool that does fit your typewriter.



Just remember that those two C's of PM include gentle treatment. This means never lean on your typewriter . . . or hit the keys unless there's paper in it . . . or yank out the paper without first releasing the feed roll. And don't keep it near heat (like a stove or radiator).

You should never lift your typewriter by the carriage . . . or load books, boxes or any other heavy stuff on top of it.

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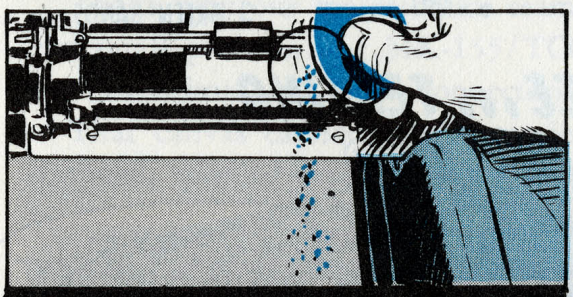

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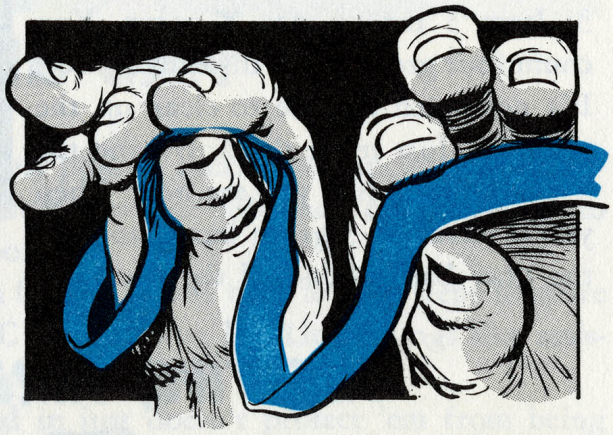

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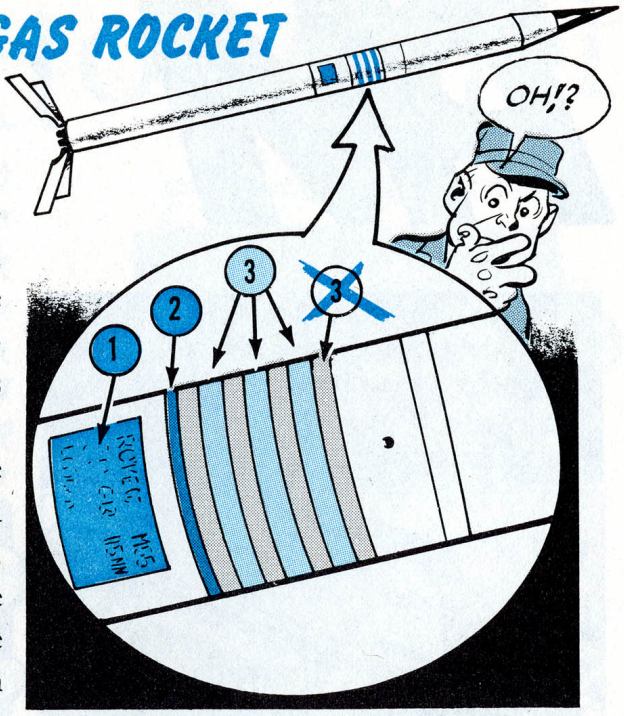
STRIPED GAS ROCKET

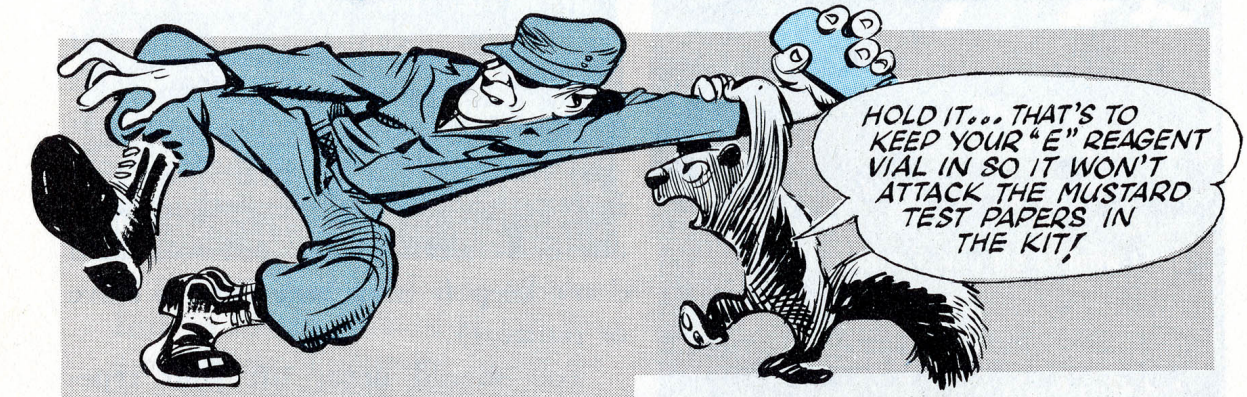
Maybe you've been puzzled by Fig 5 of TB CML 73 (20 April 61). According to para 7 of the TB, that M55 115-mm gas rocket and its shipping and firing container are marked with three green bands to identify the type of filling and one yellow band to show there's high explosive in the burster.

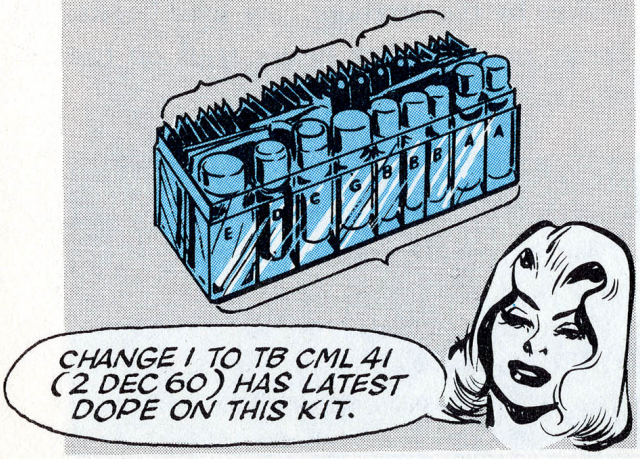
Now when you turn to Fig 5 on page 3, Item 3 throws you a curve. You count four green bands instead of three. It's not much trouble to clear up the problem. Just move the arrow and the 3 over a little like you see here. Then you'll have the 3 green bands and not the gray background of the decal.



1 IDENTIFICATION LABEL
2 YELLOW BAND
3 GREEN BANDS

ONE, TWO, THREE... TESTING





Some changes have been made in the ABC-M3 Food Testing and Screening Kit. This is the kit that's used to make simple and quick field tests to see if food is contaminated by chemical agents.

You now get nine large reagent vials and twenty-seven packets of test papers.

There's more info on using the kit too. So if you want the latest dope, get hold of Change 1 to TB CML 41 (2 Dec 60).

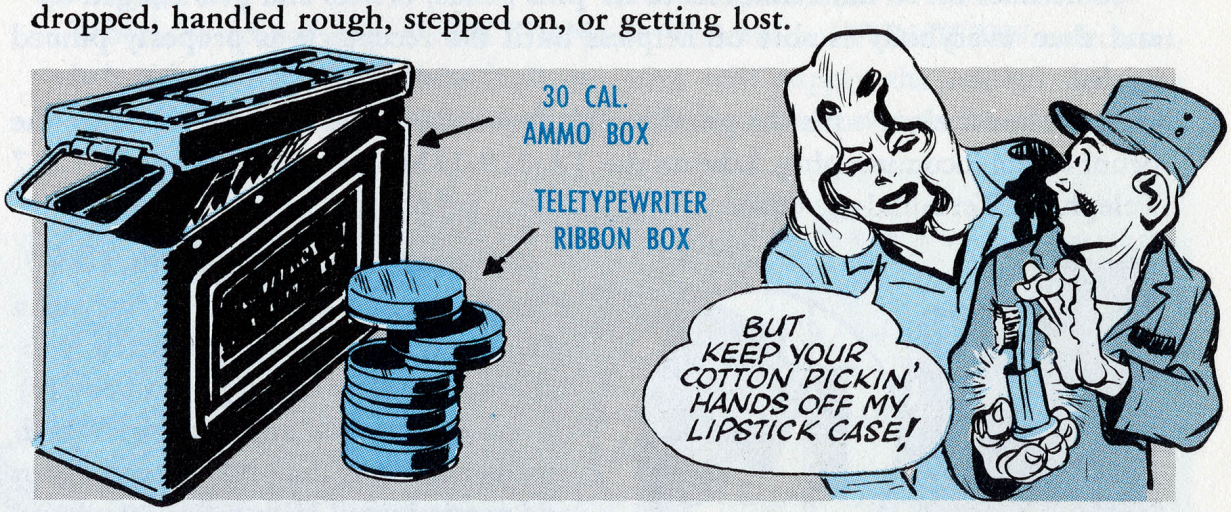
IN THE CAN

Dear Editor,

You know how it is when you're busy pulling checks on some carrier equipment ten miles up forward. There's little time for delay and even less time to repair or replace damaged parts or tools.

That's why our maintenance team figured it was time to take steps to spare the small parts in our MK-155/TCC test facilities kit. Little things like resistors, capacitors, test leads, connectors and the rest.

That canvas carrier they're carried in just doesn't protect 'em from being dropped, handled rough, stepped on, or getting lost.



So we grabbed ourselves an empty ammunition box to carry the load. The kind used to hold .30-cal ammo. It's plenty rugged, and has a lid to keep things secure.

For the really small fry, we figured teletypewriter ribbon cans were a "natural". They're small and strong and can be slipped right inside the ammo box.

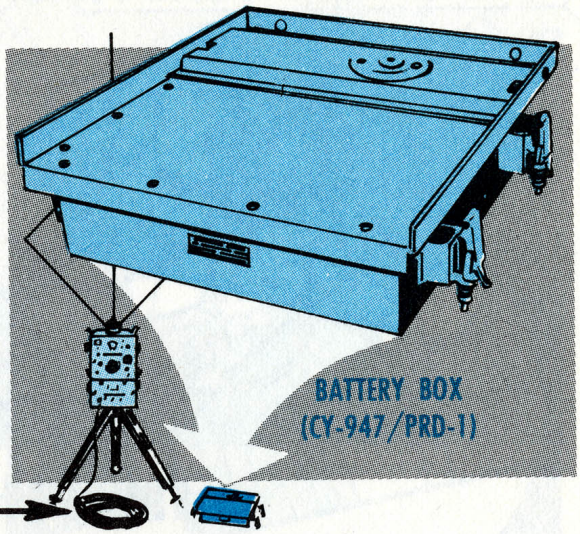
Though you might want to pass this along.

Sgt. S. M. P.

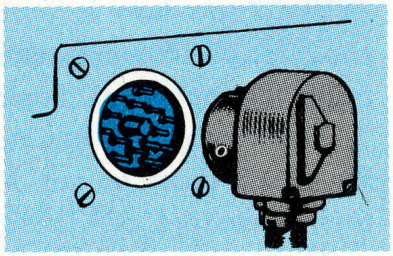
(Ed Note—Sounds good. Will do.)

CHECK YOUR BOXES

If you've recently laid hold of a new battery box CY-947/PRD-1 for your direction finder set AN/PRD-1, better give it another eyeballing. It seems that some of 'em are coming down the supply channel with mixed up wiring on their cable assembly battery connectors. When making the check, keep the wiring diagram handy. You'll find it on page 124 of TM 11-677 (Oct 55).



PIN PM

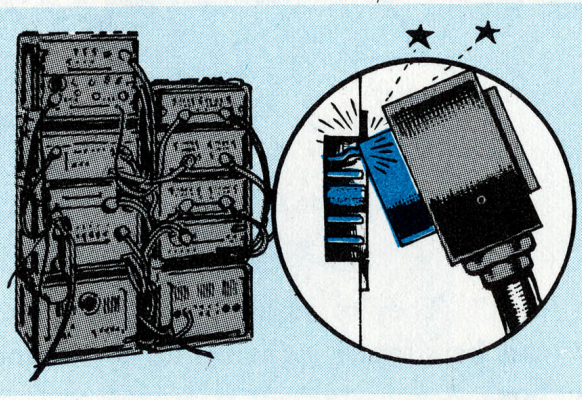


There's something sorta helpless about a receptacle connector (male type).

It just sits there waiting for its plug connector to come along—and sometimes gets hit hard when the mating takes place.

Sometimes hit so hard that one of its pins bends, breaks and gets banged up—and then everybody is sort of helpless until the receptacle is properly pinned again.

And almost always it's the pin directly above the guide screw that bears the brunt of the incoming plug. Like on the TA-219/U Model used in the AN/TCC-7 Telephone Terminal—to name just one.

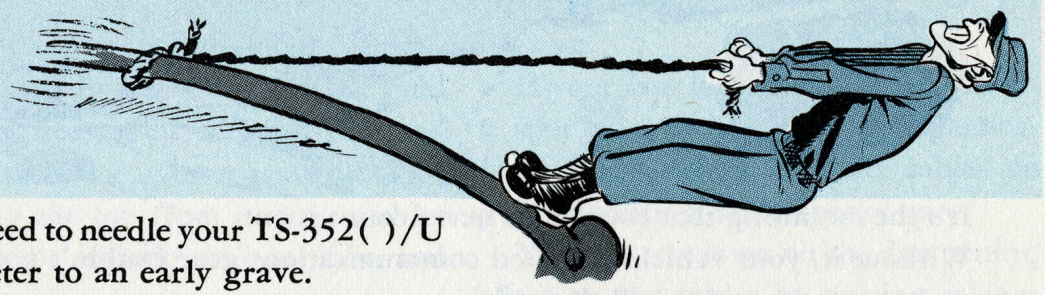


An operator is setting up his Teek 7. Plugging away. He goes to line up a plug connector with a receptacle connector and relies heavily (too heavily) on the receptacle's guide screw. Which means he moves the plug up and down and around until both guide screw and guide hole line up. Then he pushes 'er in.

The damage is done when the plug connector is moved around as the operator tries to line up the two connectors.

That extra moment of care and time to line things up will keep those pins straight and true—and keep the equipment on the line.

NOOSE FOR A NERVOUS NEEDLE



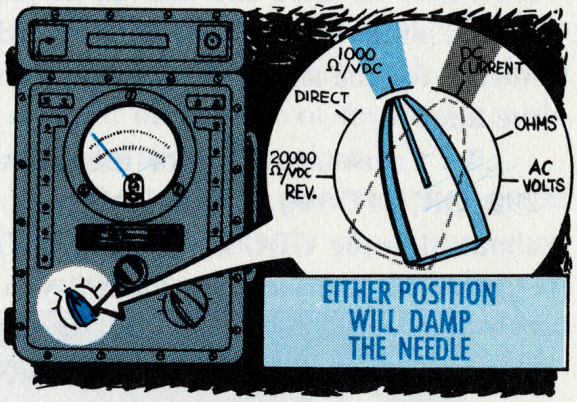
No need to needle your TS-352( )/U multimeter to an early grave.

Yet, that could happen—next time you pack up your test equipment and move out.

Because bouncin' around in a vehicle or aircraft can jar your TS-352 enough to make its needle jump. And a nervous needle—under those conditions—makes the meter movement act like a small generator.

So the idea is to slip a sort of electronic noose over that needle to keep 'er at rest during transit. And that's easy enough to take care of—just by doing one thing.

Which is to set the FUNCTION switch either to its 1000 ohms/volt or DC CURRENT setting. With the switch



in either of those two positions, you've always got 2300 ohms in parallel with the meter, regardless of the RANGE switch position.

This kind of FUNCTION switch setting will supply the needed damping effect—and keep the needle at travel rest.

YOU NAME IT...

Half a dozen pages, that's all.

But TB SIG 239-38 (5 Jan 61) bulges with the kind of information that pays off over and over.

It lists all the Signal Corps materiel used to support Nike-Ajax and Nike-Hercules units. It identifies this Signal equipment, for example, by:

Short title H-81A/U
Descriptive title . . . . . Handset-Headset
Stock number . . . . . FSN 5965-519-9366
Maintenance publication . . . TM 11-5965-207-12P-35P.

MOUNTING COUNT

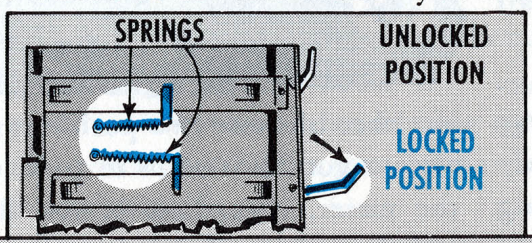
It's the mounting that counts—so never count it out.

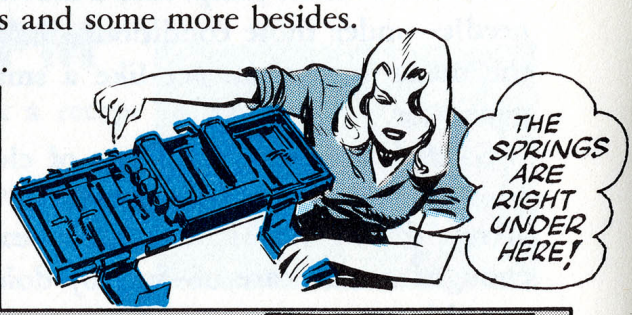
Without it, your vehicle-mounted communications gear couldn't go for a ride from here to there and still do its job.

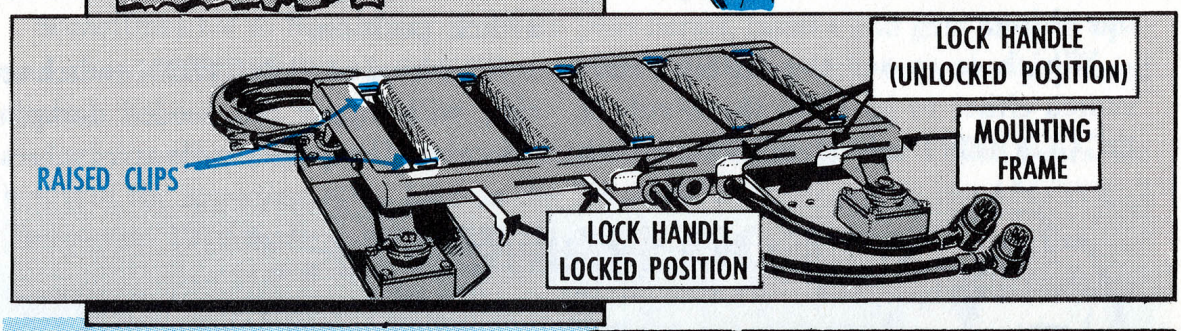
And some sets haven't been heard lately just because their mountings were hurtin' for the slight touch of preventive maintenance needed to keep them on the line.

Like f'rinstance some of the old standbys: MT-297/GR, MT-298/GR, MT-299/GR, MT-300/GR and MT-327/GR. They provide the platform for just about all your GRC's, VRC's and VRQ's and some more besides.

"So what's to do with them?" you ask.







First and foremost, the springs underneath the mounting need a real careful eye check to make sure that they're hooked up right—or hooked up at all.

Without those springs, of course, the whole locking assembly of the mounting loses its grip. And the danger is that it's mighty easy to overlook 'em because they're underneath the mounting. A man has to take an extra second or two to poke down there to make sure they're OK.

When it comes time to lock your commo component onto its mounting, always be sure the moving bar of the mounting hooks snugly into the underside of the radio equipment.

If it doesn't, you'll have a loose hookup. And, naturally, once your vehicle moves out, the commo equipment will start jumpin' around like Connie on a cold morning.

Next time your gear is stripped from the vehicle, check the top of the mounting. The paint usually is scraped and

scratched as sets are removed and replaced.

Unless you've got one of the aluminum models of the MT-297/GR, sand the scratched paint off the top and spread it with a light coat of oil. This will keep the top from rusting and let you lock or unlock your set free and easy like.

Maybe you're one of the MT-297/GR owners who lucked into a mounting with cable retainers dummy plugs. If so, use them whenever your gear is off its mounting. This'll keep the cables from dangling where they can get beat up.

If your unit finds itself holding down a spot where the weather is particularly damp, better give the cables on your mounting some special care.

You can cut down on the dampening effect on the cables by putting talcum powder on them. But you may find it's gotta be wiped off every week and fresh talc put on because of the moisture absorbed during that time.

What you don't want to do is to paint those cables. This is about the worst thing you could do since the paint will cause the cable coating to break down in short order.

CRANK WITH CARE

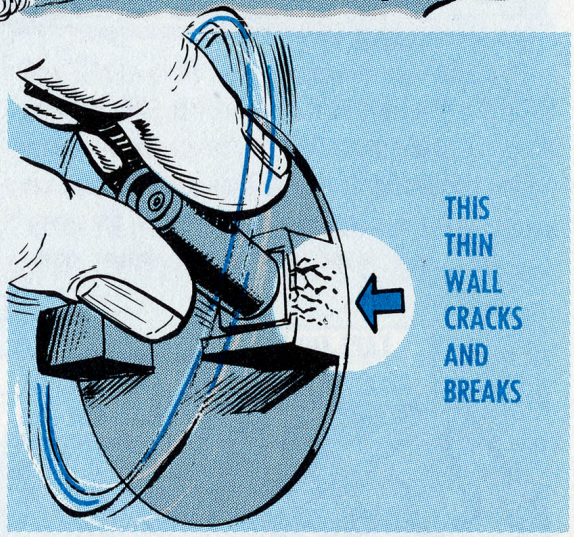
You're in a hurry to ring up the next post down the line.

And the handle of your TA-43/PT or TA-312/PT field phone or SB-22/PT switchboard is handy and ready.

But sort of keep one thought close to the surface when you start crankin' away. The handle on the crank assembly of the hand-ringing generator maybe isn't the strongest handle ever made.

It's plenty rugged, right enough. But the next time you're crankin' away, remember that many a phone has been put off the circuit because the thin wall at the base of the handle has cracked and broken.

Most of the pressure from your cranking will push the handle against the



back wall. And since the wall is made of fairly thin aluminum, it'll stand up just so long.

Crank away. But a little care will give the handle the kind of handling it needs for longer life.

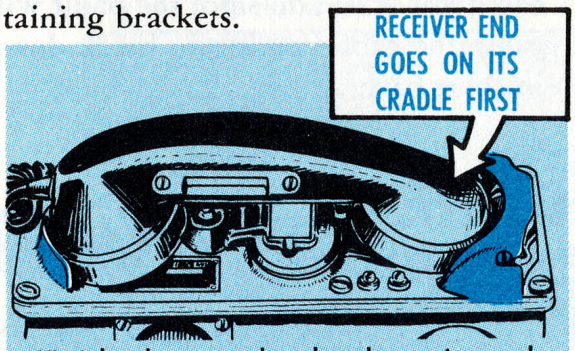
FIELD PHONE RING-A-DING

You're finished talkin'—so hang up!

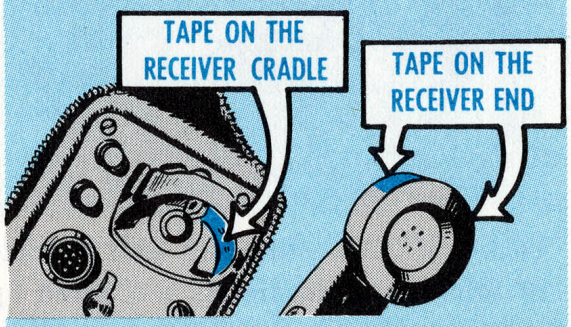
Like on your TA-43/PT or TA-312/PT field telephone. Just put the H-60/PT handset back in its cradle and forget about it till next time.

It's easy. Trouble is, though, it's also easy to drop that handset into its cradle the wrong way. And that can easily lead to several kinds of trouble, any one of which could deadline your phone.

Figure it this way. When you pop the H-60 back into place, remember that the **larger** (transmitter) end fits into the **smaller** of the two handset retaining brackets.



Y'might also remember that the receiver end of the handset hits the cradle first. Slide her into place at about a 45-degree angle, so she meets the two prongs head-on. Then, with the receiver of the H-60 snuggled into its bracket, the transmitter end drops into place almost automatically.



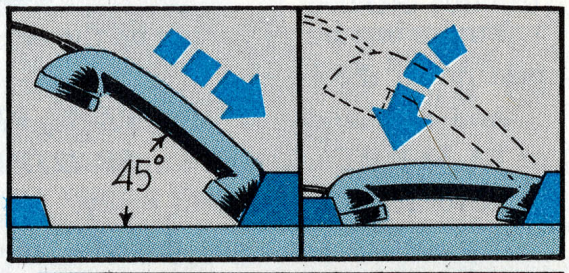
A tiny patch of tape on the receiver cap and the receiver bracket (the one with the prongs) will guarantee that your handset gets into its cradle the way she's supposed to.

Comes the question: What difference does it make which end goes where—and when as long as she's back between the brackets?

At least two solid reasons.

1 The receiver bracket sticks up higher than the other one. And if a talker returns the handset to the cradle the wrong way—so that the transmitter end (where the cord enters H-60) drops into the **receiver** bracket—the cord will bump and rub and chafe against it.

It's just a matter of time before that kind of abuse finishes off the cord and takes the phone off the line.



2 Talking about the receiver bracket, those prongs sticking out of it want to be hit head-on by the receiver end of the handset. Approaching them from above will mangle 'em for sure. And without them, you have no tension to hold the H-60 in place.

So when you hang up, don't get hung up.

Slip your handset into her cradle smooth and right—and she'll come out the same way.

CLIP JOB

Next time it's time to clip your H-33()/PT handset, bear in mind there's more than one way to clip that critter.

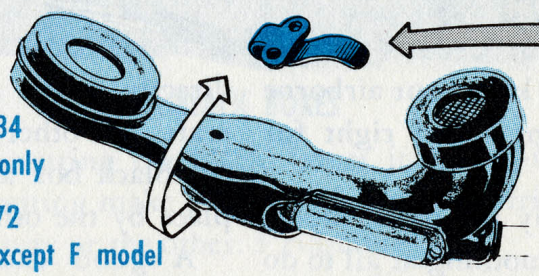
For one thing, you have to check to see which of the six models you have in hand, because the model decides which of the two available belt clips you need. Those two clips, it seems, are not interchangeable.

The spacing of the mounting holes on the H-33F model is different than from all other models (H-33/PT, H-33B, C, D and E). Mostly a matter of the holes being further apart.

Here's how they shape up:

CLIP, FSN 5340-590-8034
fits the F model only

CLIP, FSN 5805-330-9672
fits all models except F model



WHEN ORDERING CLIPS, INCLUDE HANDSET MODEL NUMBER OR LETTER

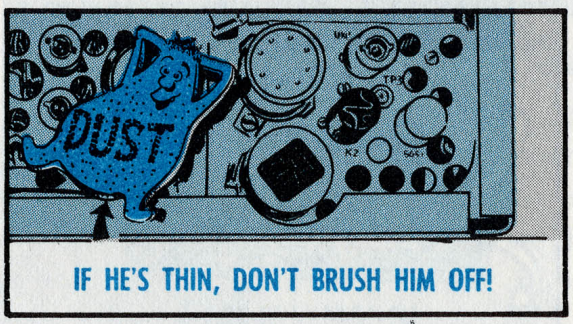
Next time and any time you need a new clip, be sure to spell out which model of the H-33 you're handling.

SPARE THE BRUSH

Giving your communication gear an inside brush-off can do more than hurt its feelings.

It'll hurt its innards. Hurt 'em bad.

'Cause the internal components would just as soon have a little dust lying around—not disturbing anything—than have it swirled back and forth just so the chassis can shine and the inspector can keep his gloves white.



IF HE'S THIN, DON'T BRUSH HIM OFF!

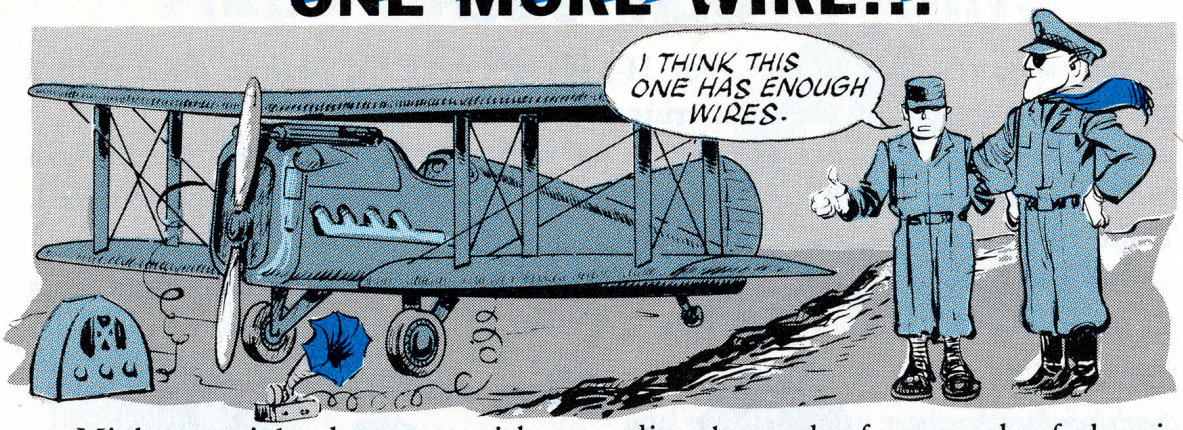
All this might sound like deliberate, bad PM. But look at it this way. Dust is worse than poison to relays, wafers, contact points, connectors, and the like. F'rinstance, it only takes one speck of dust to put a relay out of action. Just one small speck.

Now an eager cleaner swishing around inside the chassis every week or so will never really let the dust settle. Those sensitive components will have dust in their electronic eyeballs all the time.

Of course, if your chassis is sportin' a cover of dust as thick as a fat felt pad, there's no question about gettin' in there with a soft brush. But if the dust is nothing worse than a thin, light layer, lay that brush down for a while.

Goes without saying that you'll keep the outside surfaces of your equipment clean every time. But think twice—maybe three times—before giving her the inside brush-off.

ONE MORE WIRE...



Mighty crucial to keep your airborne electronic equipment wired right for sound and sight.

But some will say the most important wiring job has nothing at all to do with electronics. They'll say, instead, that **safety** wiring is even more crucial.

After all, things could get unhappy to say the least if a black box breaks loose during a mission and makes like a rubber ball inside your ship.

So, just about every piece of Signal Corps airborne communication equipment calls for safety wiring. Whether it be mounts, transmitters, receivers, dynamotors, power supplies and the rest.

Trouble is, some of those boxes are tough to get at in the first place—and even tougher to reach with enough fingers to do a good safety wiring job.

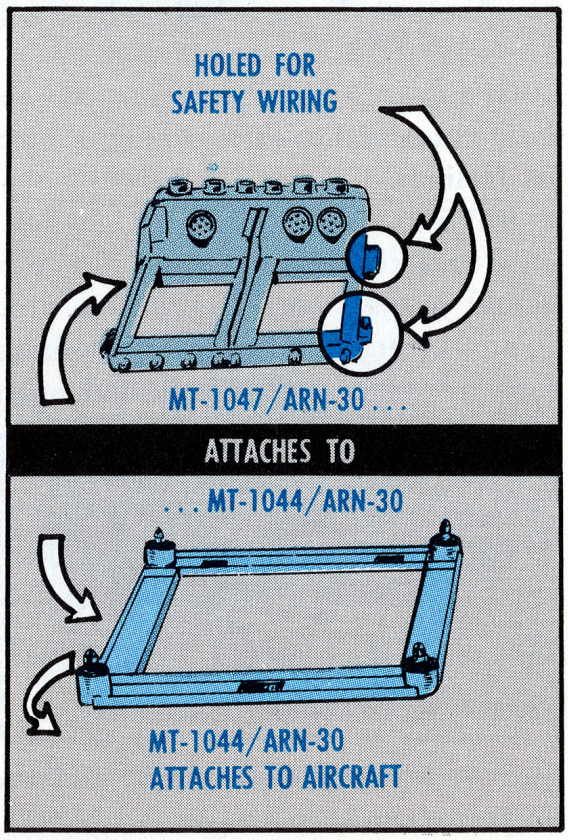
Might be helpful, then, to pass along a few tried and true reminders that'll make your safety wiring chore easier to perform and check.

Look at it this way . . .

MOUNTINGS

Many a mounting assembly actually comes in two parts—each mounting an individual item with its own nomenclature. One is the mounting that bolts directly to the framework of the aircraft. The other does two jobs. It holds the black box and is, in turn, held in place by the other mounting.

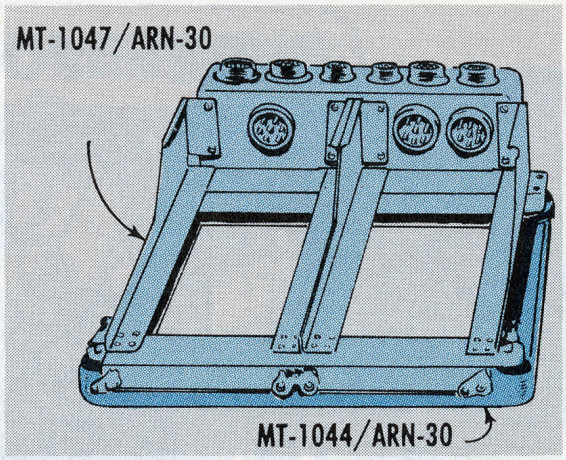
A good example would be the mounting(s) used by the AN/ ARN-30 OMNI: MT-1044/ARN-30 and MT-1047/ARN-30.



The MT-1044 is attached to the aircraft and the MT-1047 fits onto it (and also cradles the black boxes).

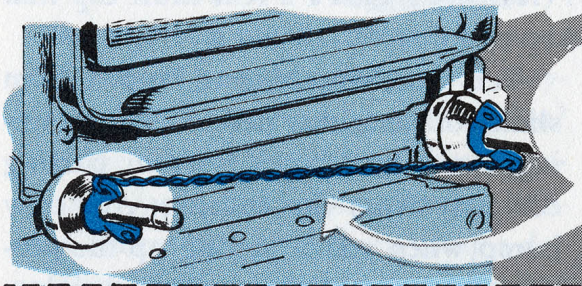
Small ratchets at each corner of the MT-1047 are slid into place to lock into posts protruding upwards from the MT-1044. These ratchets and posts provide a good, firm lock 'twixt the two mountings. Which is fine. But—both are holed for safety wiring nevertheless.

So, always check your mountings. If they're the two-part type, take a little extra time to safety wire them together.



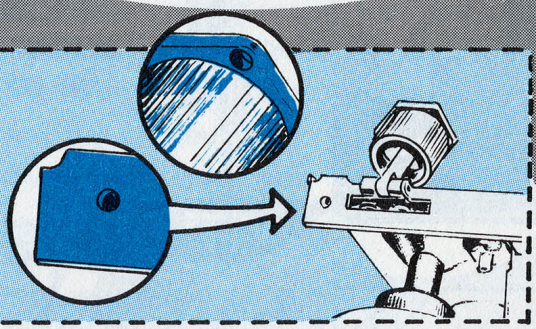
BLACK BOXES

When it comes to securing the black boxes in place—it's unanimous. The fasteners on every mounting make provision for safety wiring. All are holed to accept safety wire one way or the other. F'rinstance . . .

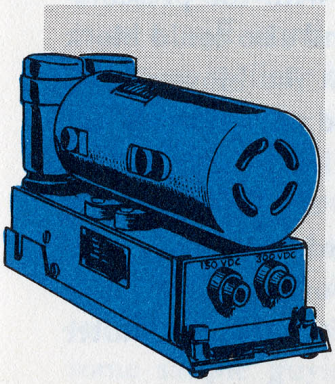


Take the two wing nuts on the MT-1536/ARC-55. Safety wiring in this case usually runs between the two fastening screws, using the cross-over technique. That way, any loosening of one nut will act to tighten the other.

In the case of mountings like MT-274/ARN-6, the mounting itself—as well as the fasteners—are holed. That way, the safety wire can run from the fasteners directly to the mounting.



DYNAMOTORS



That's right . . . that's right. Safety wiring some dynamotors calls for some fancy fingering. It's sometimes tricky enough just to release the ratchets, let alone wire for safety.

One way to ease the strain, though, would be to get things started before dropping the dynamotor on its mounting. Thread the wire . . . twist it . . . and have it ready to slip into the post on the mounting. That should ease the strain . . .by taking care of the more than half the safety wiring before the unit is dropped onto its mounting.

As always, the few extra minutes of good PM and sound operation will pay off when the mission is underway and it's too late for "one more check."

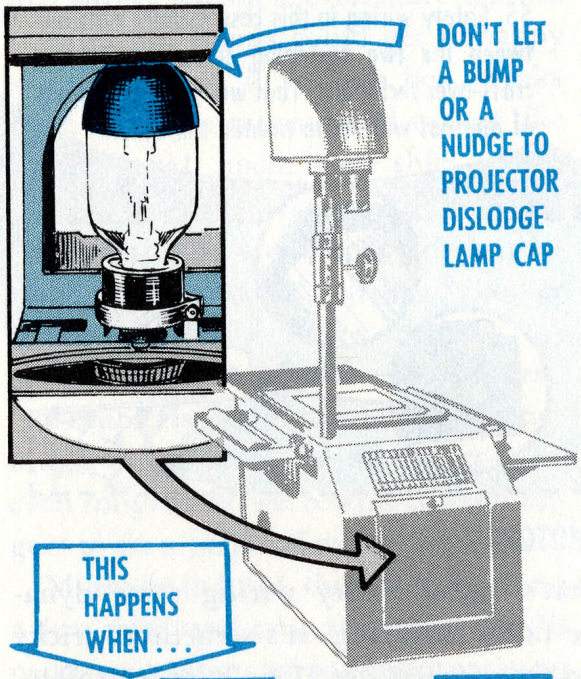
MORE AIRCRAFT ARTICLES... PAGE 50

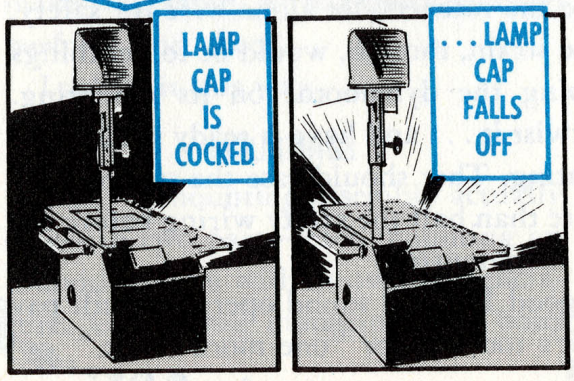
SET YOUR CAP

Really no need to argue.

Some caps do look better worn at an angle. Connie usually wears 'em that way.

But never so with the metal lamp cap that fits over the top of the projection lamp in your standard Projector PH-637(A)/PFP. That's a real skull cap that has to fit snug and square every time. No room for style.





Yet, there's nothing to keep it from slidin' off its glassy perch. That retaining chain just keeps it from parting company from the housing. Any easy bump when you're setting up the projector . . . or maybe somebody sittin' on the aisle sticks his feet out and jars the machine. That's all it takes, and the cap's cocked.

And that's when the light starts playing tricks. 'Cause a cocked lamp cap lets light escape up and out through the air louvers at the rear of the housing.

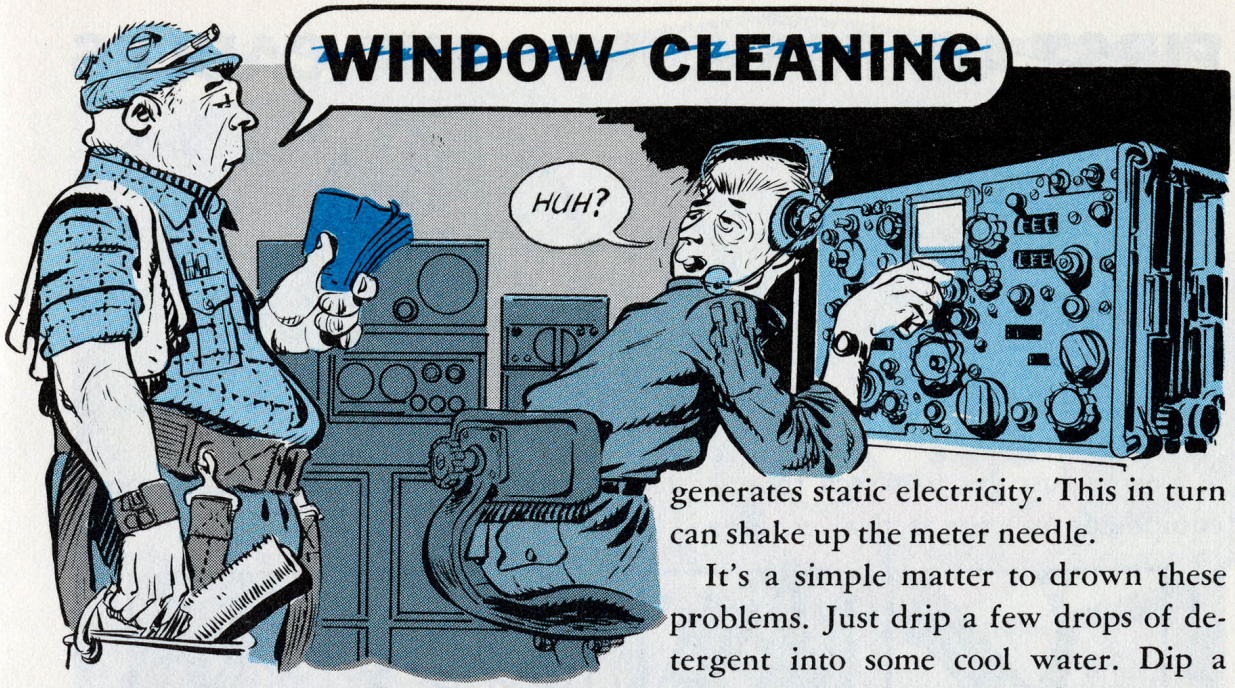
It also interferes with the presentation on the screen and also could block the flow of air from the blower. And if the cap slips **all** the way off the lamp, the whole projector lights up front and rear. Which means the show is over.

So, care is the word.

Care not to bump or jar the projector if possible, either before, during or after setting up.

And care to check the cap for proper position just before the show starts.

WINDOW CLEANING



Been getting bug-eyed scanning your radio meters and radar scopes? Or maybe getting phony readings from them?

If the answer to either of these questions is "yes", check your cleaning habits. Chances are you've been using a dry or dirty cloth, which puts fine scratches on the plastic windows.

And, in some places where the humidity is low, wiping with a dry cloth generates static electricity. This in turn can shake up the meter needle.

It's a simple matter to drown these problems. Just drip a few drops of detergent into some cool water. Dip a cloth into the solution and wipe your window. That's all there is to it. No need even to rinse or rub dry.

Depending on local conditions, you'll have a clean window for months.

It goes without saying that this method is N.G. if you're in an icy climate where frosted or fogged faces will keep staring at you after you've wiped a damp cloth over 'em.

HEAP BIG WIND

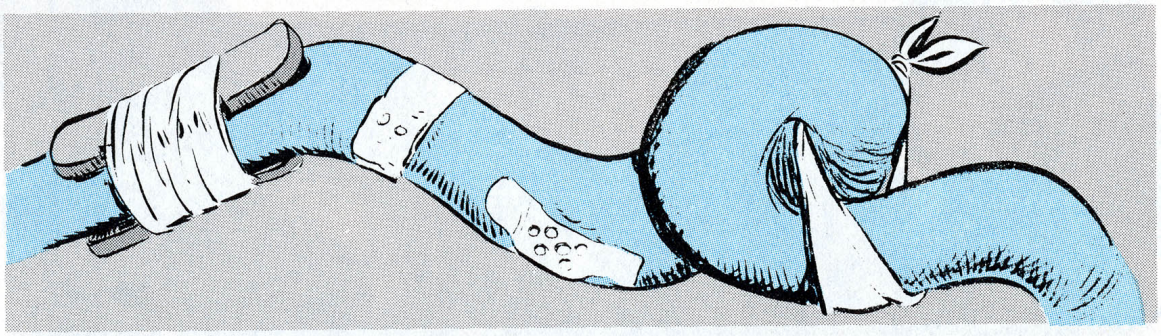
Sometimes more wind comes **at** the loudspeaker than comes out of it. So it is with the LS-103 loudspeaker—whenever a stiff wind hits it and sends it down on its little big horn.

That horn is a bit top heavy anyway, and when a brisk breeze blows into it, the combined effect is enough to send the whole works sprawling.

Unless. Unless the tripod support assembly is given a helping hand with some simple guying. Anything that's handy will do. Rope. Steel wire. And a few pegs pounded into the ground to

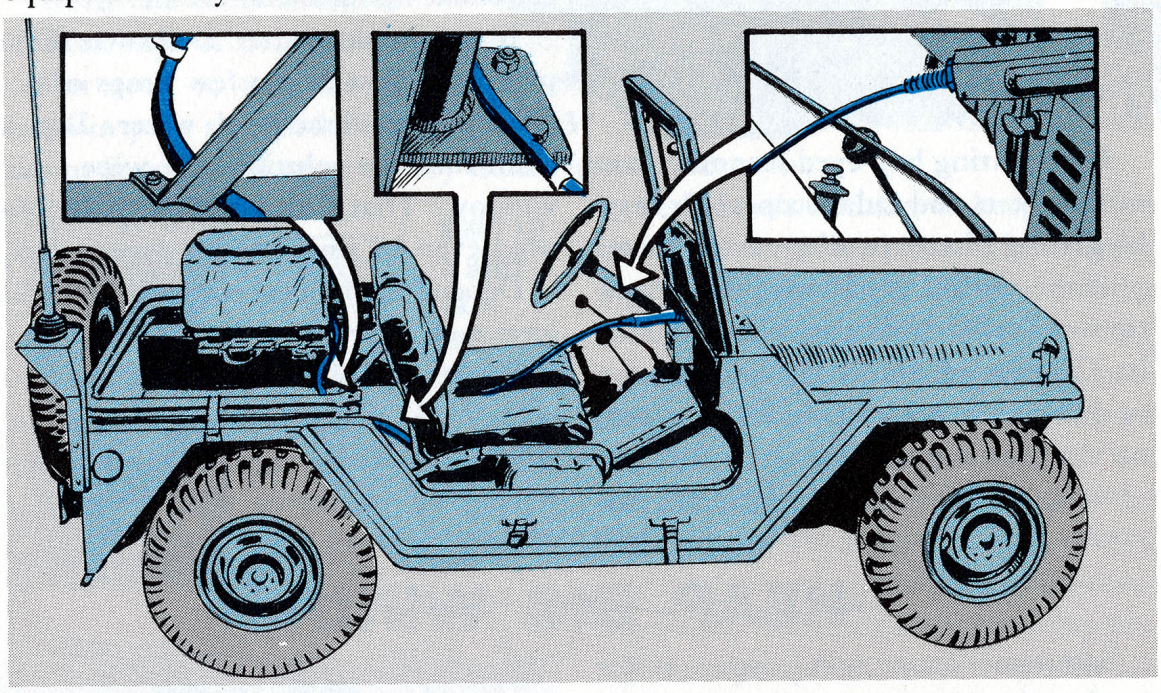
tie the guying to. That'll secure the speaker and handle any wind problem that might come blowin' along.

FIRST AID FOR CORDS AND CABLES



Oops!

You've just got to watch those extension cords and cables connecting comm equipment on your tactical vehicles.



They may look like they can take a lot of stompin', twisting, kicking and other rough-housing. But, as the old saying goes, looks can be deceiving.

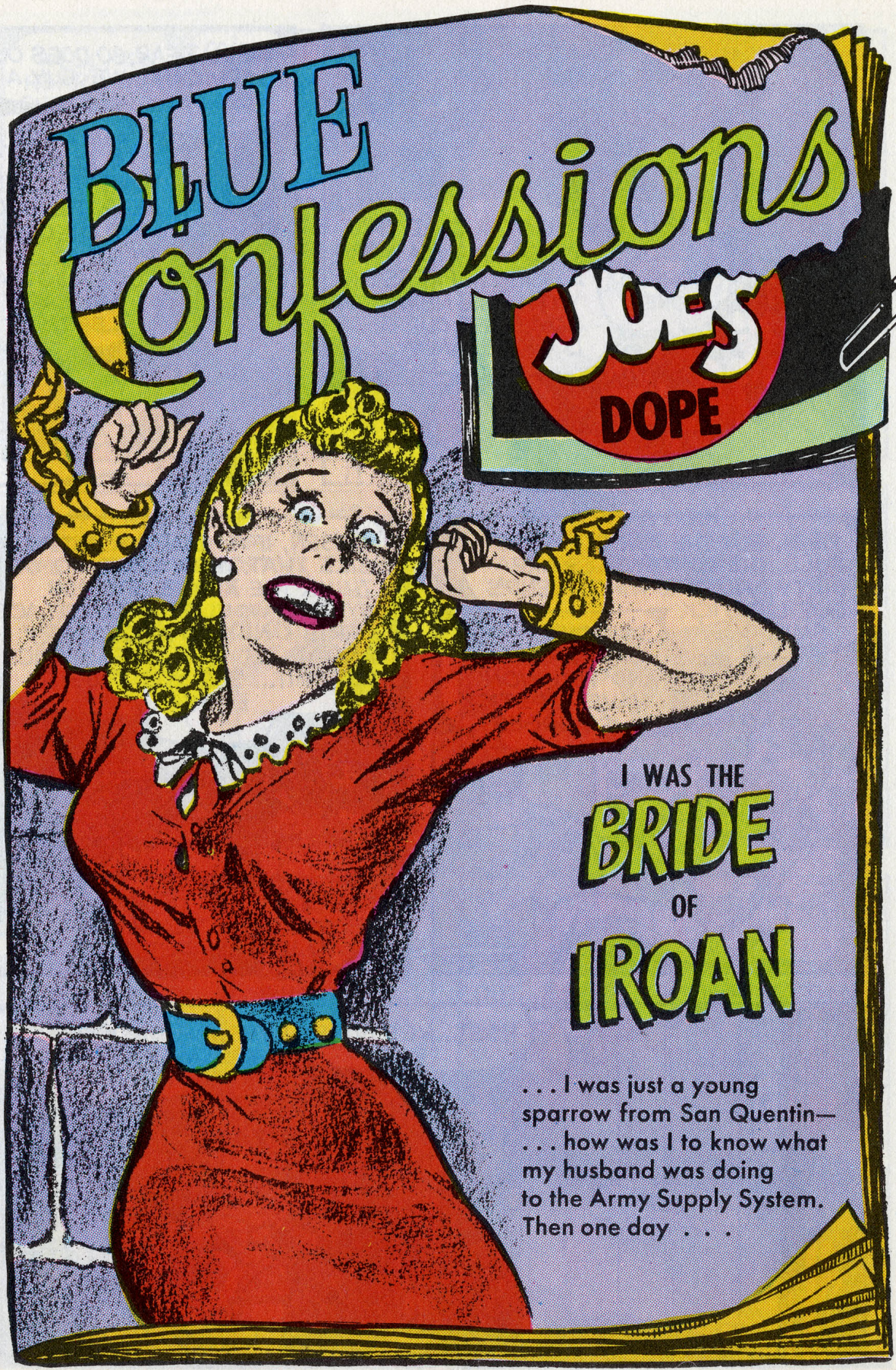
You can speed your cords and cables along the road to an early grave by dropping folding seats on them, giving 'em the heat treatment, spilling paint, oil and stuff on 'em or just plain careless use.

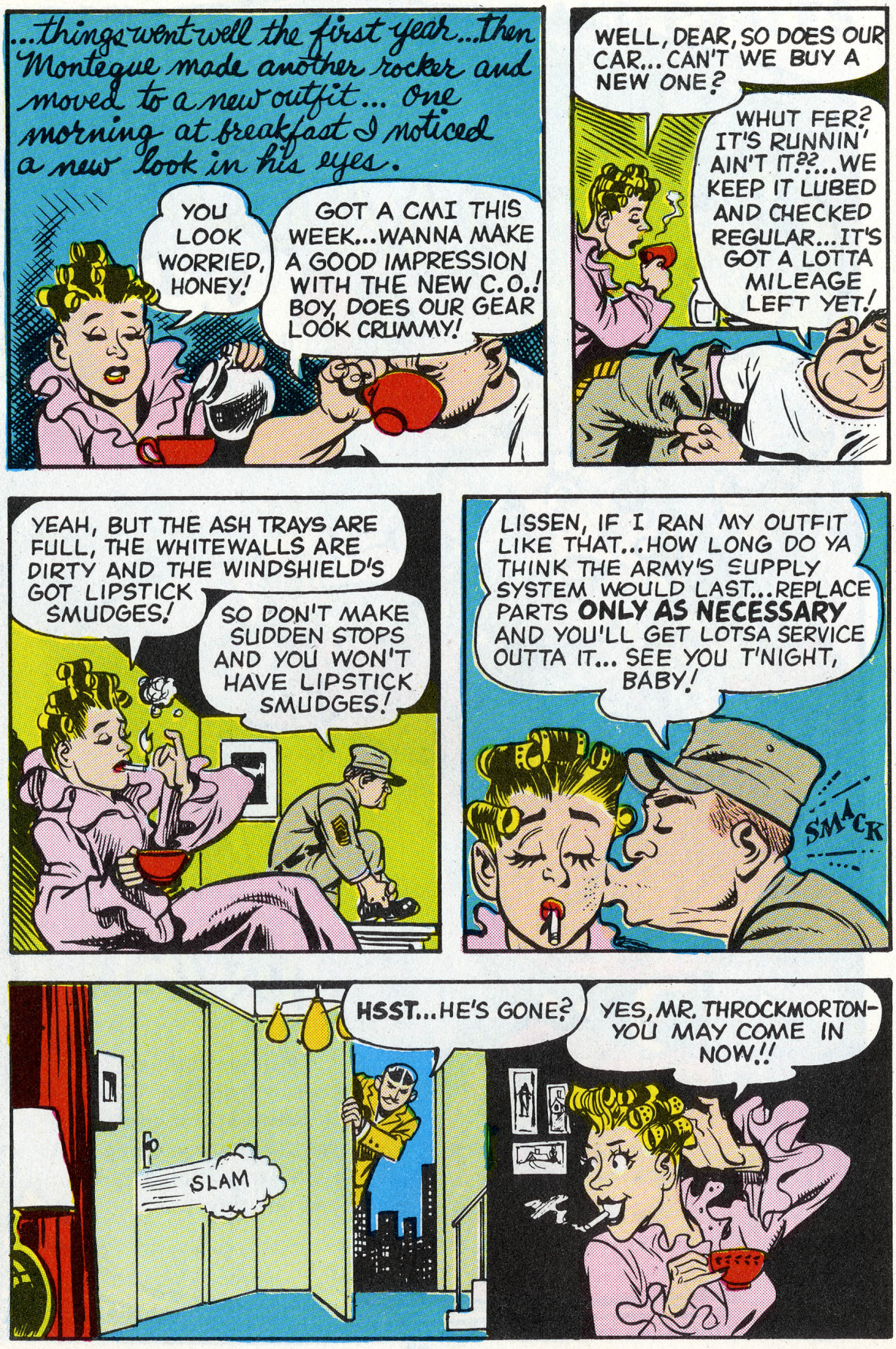
Sometimes they'll be hurtin' because of things you can't control . . . like fast temperature and humidity changes and normal wear and tear.

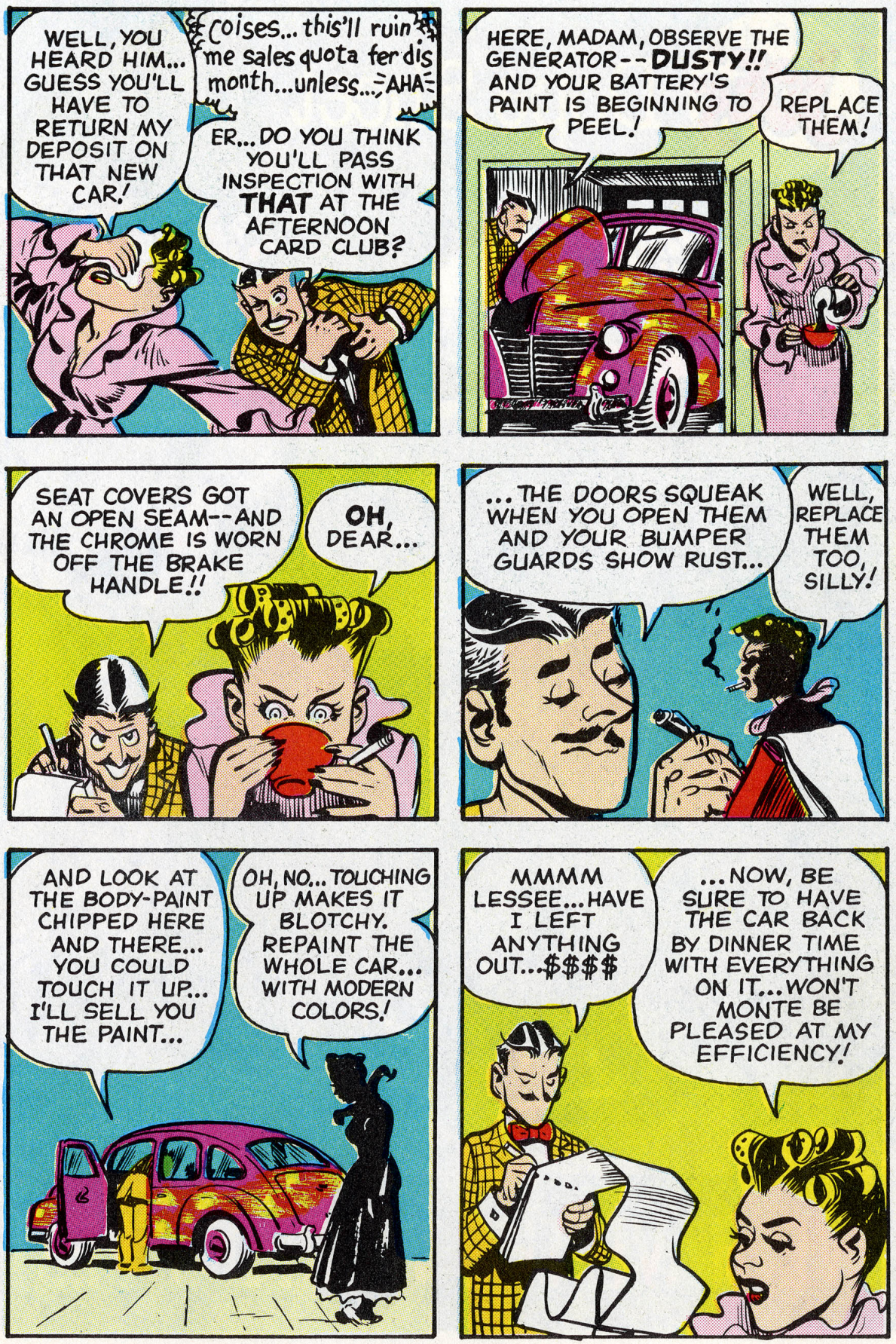
But you can spare them from bending or kinking.

A good dose of PM will go a long way, too. Checking daily for breaks in the insulation is a good way to begin. This leads to repairs and replacement before your equipment gives you the silent treatment.

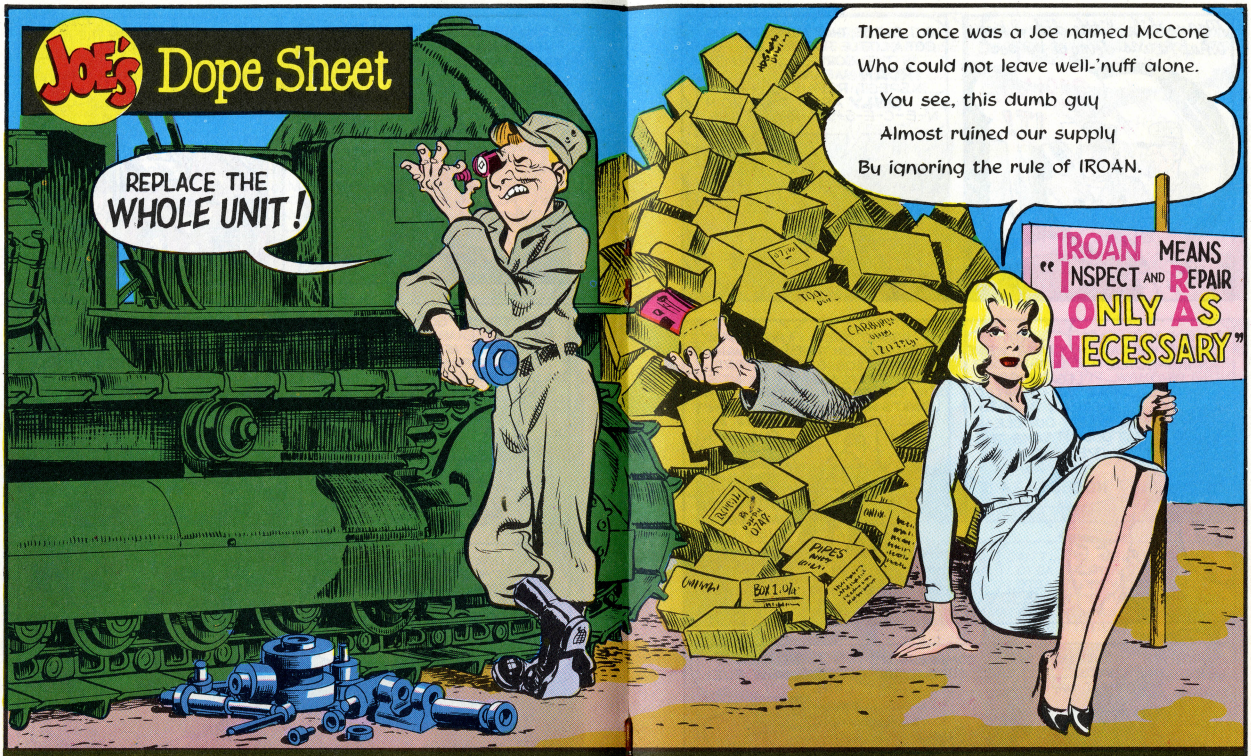
One more thought to keep handy when treating a sick cord or cable . . . never splice it.


BLUE Confessions
DOPE
I WAS THE
BRIDE
OF
IROAN
. . . I was just a young sparrow from San Quentin—
. . . how was I to know what my husband was doing to the Army Supply System.
Then one day . . .


...things went well the first year...then Montegue made another rocker and moved to a new outfit... One morning at breakfast I noticed a new look in his eyes.
YOU LOOK WORRIED, HONEY!
GOT A CMI THIS WEEK...WANNA MAKE A GOOD IMPRESSION WITH THE NEW C.O.! BOY, DOES OUR GEAR LOOK CRUMMY!
WELL, DEAR, SO DOES OUR CAR... CAN'T WE BUY A NEW ONE?
WHUT FER? IT'S RUNNIN' AIN'T IT?...WE KEEP IT LUBED AND CHECKED REGULAR... IT'S GOT A LOTTA MILEAGE LEFT YET!
YEAH, BUT THE ASH TRAYS ARE FULL, THE WHITEWALLS ARE DIRTY AND THE WINDSHIELD'S GOT LIPSTICK SMUDGES!
SO DON'T MAKE SUDDEN STOPS AND YOU WON'T HAVE LIPSTICK SMUDGES!
LISSEN, IF I RAN MY OUTFIT LIKE THAT...HOW LONG DO YA THINK THE ARMY'S SUPPLY SYSTEM WOULD LAST...REPLACE PARTS ONLY AS NECESSARY AND YOU'LL GET LOTSA SERVICE OUTTA IT... SEE YOU T'NIGHT, BABY!
SMACK
SLAM
HSST...HE'S GONE?
YES, MR. THROCKMORTON- YOU MAY COME IN NOW!!

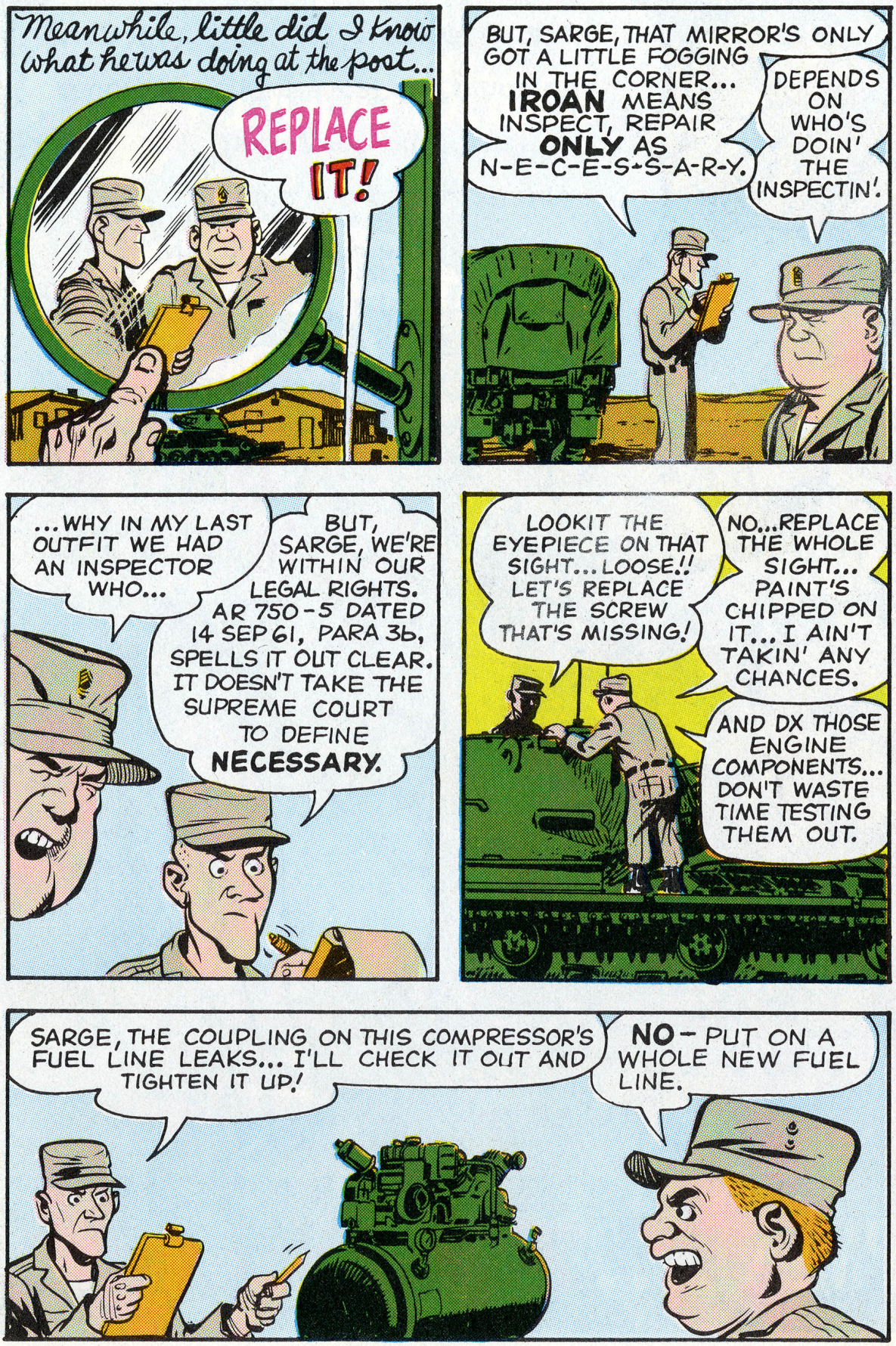

WELL, YOU HEARD HIM... GUESS YOU'LL HAVE TO RETURN MY DEPOSIT ON THAT NEW CAR!
{coises... this'll ruin me sales quota fer dis month...unless...} AHA
ER... DO YOU THINK YOU'LL PASS INSPECTION WITH THAT AT THE AFTERNOON CARD CLUB?
HERE, MADAM, OBSERVE THE GENERATOR--DUSTY!! AND YOUR BATTERY'S PAINT IS BEGINNING TO PEEL!
REPLACE THEM!
SEAT COVERS GOT AN OPEN SEAM--AND THE CHROME IS WORN OFF THE BRAKE HANDLE!!
OH, DEAR...
...THE DOORS SQUEAK WHEN YOU OPEN THEM AND YOUR BUMPER GUARDS SHOW RUST...
WELL, REPLACE THEM TOO, SILLY!
AND LOOK AT THE BODY-PAINT CHIPPED HERE AND THERE... YOU COULD TOUCH IT UP... I'LL SELL YOU THE PAINT...
OH, NO... TOUCHING UP MAKES IT BLOTCHY. REPAINT THE WHOLE CAR... WITH MODERN COLORS!
MMMM LESSEE... HAVE I LEFT ANYTHING OUT...$$$$
...NOW, BE SURE TO HAVE THE CAR BACK BY DINNER TIME WITH EVERYTHING ON IT... WON'T MONTE BE PLEASED AT MY EFFICIENCY!

IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BUI



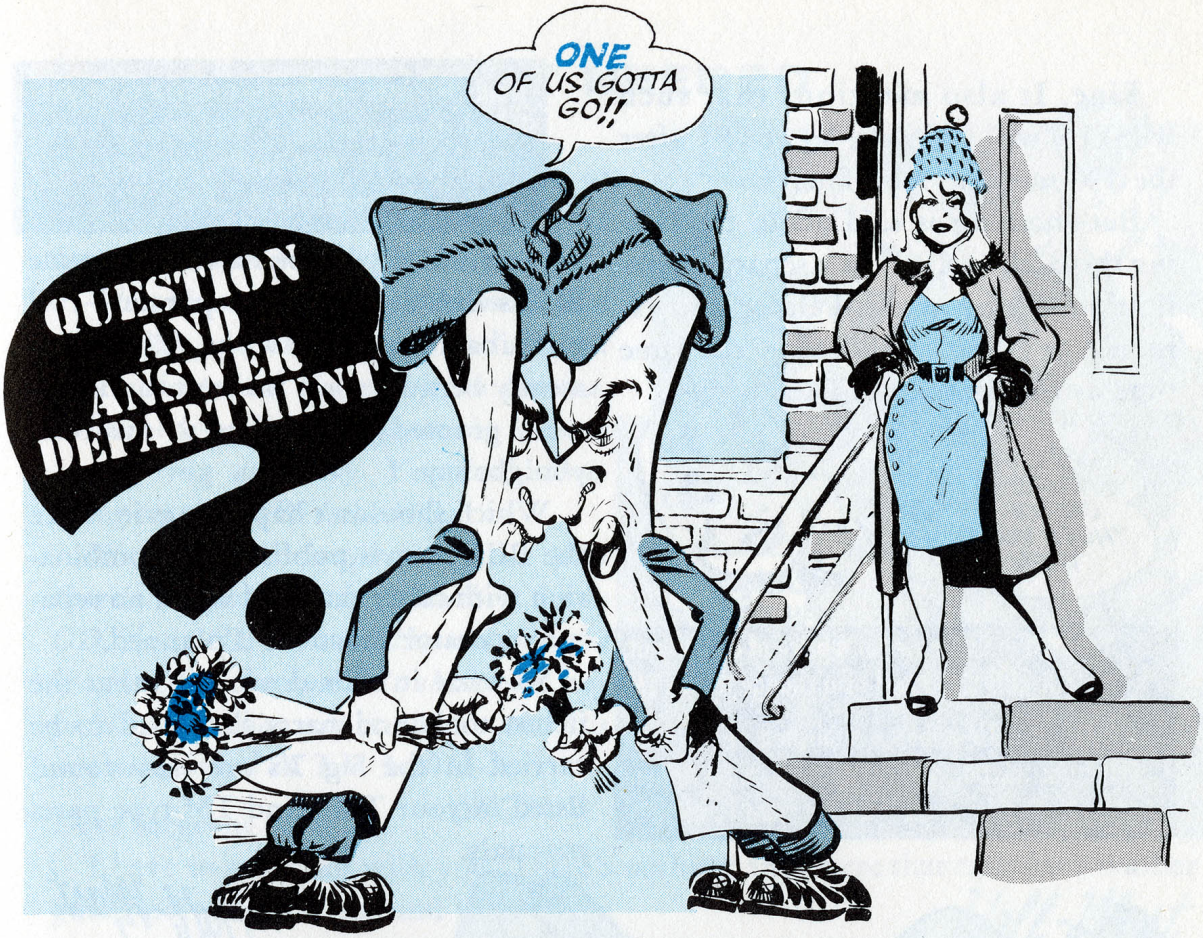
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

LETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.


Meanwhile, little did I know what he was doing at the post...
REPLACE IT!
BUT, SARGE, THAT MIRROR'S ONLY GOT A LITTLE FOGGING IN THE CORNER... IROAN MEANS INSPECT, REPAIR ONLY AS N-E-C-E-S-S-A-R-Y.
DEPENDS ON WHO'S DOIN' THE INSPECTIN'.
...WHY IN MY LAST OUTFIT WE HAD AN INSPECTOR WHO...
BUT, SARGE, WE'RE WITHIN OUR LEGAL RIGHTS. AR 750-5 DATED 14 SEP 61, PARA 3b, SPELLS IT OUT CLEAR. IT DOESN'T TAKE THE SUPREME COURT TO DEFINE NECESSARY.
LOOKIT THE EYEPIECE ON THAT SIGHT... LOOSE!! LET'S REPLACE THE SCREW THAT'S MISSING!
NO...REPLACE THE WHOLE SIGHT... PAINT'S CHIPPED ON IT... I AIN'T TAKIN' ANY CHANCES.
AND DX THOSE ENGINE COMPONENTS... DON'T WASTE TIME TESTING THEM OUT.
SARGE, THE COUPLING ON THIS COMPRESSOR'S FUEL LINE LEAKS... I'LL CHECK IT OUT AND TIGHTEN IT UP!
NO - PUT ON A WHOLE NEW FUEL LINE.

BUT, SARGE!
SHHH...THIS GIVES US A GOOD EXCUSE TO PUT ON ONE OF THOSE NEW JOBS... SHINE IT UP... SEE?
NOTHING IMPRESSES AN INSPECTOR MORE'N SHINY FUEL LINES... IT'S PSYCHOLOGY, GET IT!!
S-H-R-E-W-D!
SARGE, I REPLACED ALL THE REAR REFLECTORS I COULD FIND... MOST OF 'EM HAD PAINT SPATTER ON 'EM!
GOOD! IF YOU GET A FEW MINUTES, SEE IF THE LIGHTS WORK IN CASE ANYBODY ASKS!
AND GET THE OIL CHANGED IN EVERY VEHICLE... THE GENERATORS AND COMPRESSORS, TOO. WE DON'T WANT TO GET CAUGHT WITH ANY DIRTY-LOOKING OIL!
OKAY, I THINK WE'RE READY FOR 'EM TOMORROW... WOW, IT'S LATE... LET'S KNOCK OFF!
I GOTTA GET HOME AND GAP THE PLUGS ON MY CAR... BOWLIN' TONIGHT, JONES?
CAN'T... I'LL BE PUTTIN' IN LOTSA OVERTIME TONIGHT... LOTSA PAPERWORK ON ACCOUNT OF THESE REPLACE-MENTS... BOY, WAIT'LL SUPPLY SEES THESE!

HYA, TRIXI... WHATCHA DO, WASH OUR CAR? SURE LOOKS NICE!
NOT EXACTLY!
I SIMPLY REPLACED SOME OF THE PARTS... REPAINTED AND SO FORTH... HERE'S THE ITEMIZED BILL...
$3,824.32!! HOLY TOLEDO!!!! I COULDA BOUGHT A WHOLE NEW CAR WITH THAT MONEY... WHY, EVERY ONE OF THESE PARTS YOU REPLACED WAS SERVICEABLE!!
WHY, IF I RAN MY OUTFIT LIKE THIS...
AHEM... NOW, THAT'S JUST WHAT I WANT TO TALK TO YOU ABOUT, SERGEANT!
GULP, HELLO, CAPTAIN BROWN!



BEEN SEEIN' THINGS?

Dear Half-Mast,

Saw something the other day that just shouldn't be—as far as I can see! And I think my eyeballs are as round and sound as anybody's. It was a —10P, Repair Parts and Special Tools List (RPSTL), for a piece of Signal Corps equipment.

Now, Sarge, as I read the AR's, the —10P is the same as the Basic Issue Items List (BIIL). So how come it should show up as a separate publication in the form of a —10P?

AR 310-3 (May 56) seems to set things pretty straight as far as how parts manuals should be published. And I didn't see any mention of a separate publication for —10P's.

How do you read the situation? *Sgt H. U. O.*

Dear Sergeant H. U. O.,

Nothing at all wrong with your optics, Sarge, even though you **did** see some Signal —10P's.

AR 310-3 indeed passes the word on maintenance manuals—all the way from 1st through 5th echelon. And for one thing, it says that the RPSTL's for 2nd through 5th echelons will be published separately from the technical manual.

P.S. MORE

Fine. It also mentions that such RPSTL's will carry the letter "P" after the TM number. Also fine.

But—nothing is said about publishing the BIIL (—10P) as a separate publication as long as a TM either is in existence or being published at the same time as the issue items list.

If a TM is in existence for a piece of equipment, the BIIL gets published as a change to this TM.

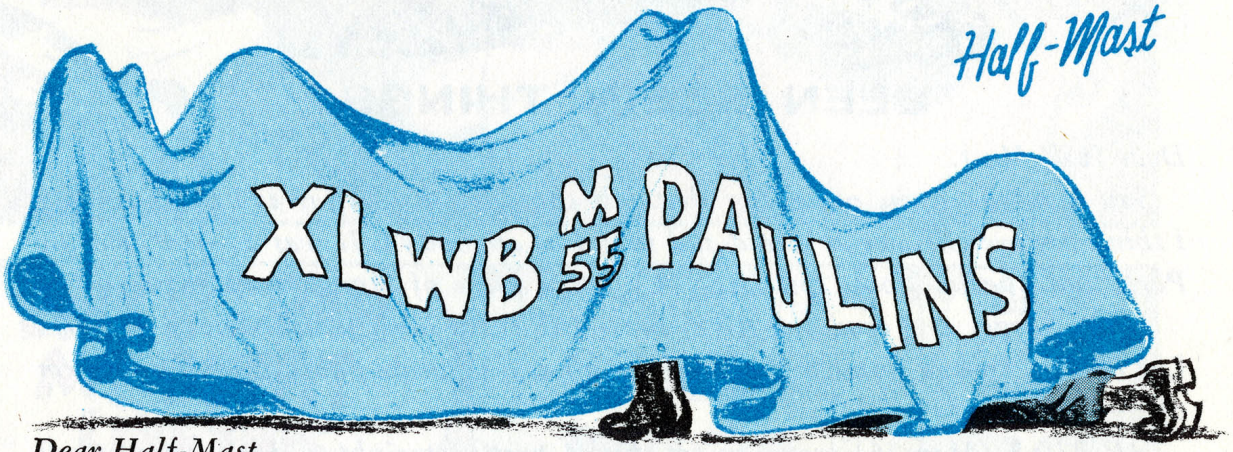
NOTE: If a TM is being published at the same time as the BIIL, the list appears as an Appendix to this TM—and is bound right inside it.

If no TM exists—and none is about to be published—then your BIIL is published in combination with the MAC and repair parts as a —10P, —12P or maybe a —15P.

Now, exactly as you mentioned, some BIIL's did show up as separate —10P publications. No sweat. That was mostly because some waivers to the AR were granted. Exceptions to the rule, y'might say.

Which shouldn't happen again, since the BIIL now is published in combination with other material when no separate operator's manual is planned.

So what it boils down to is that the items, tools and parts that used to be carried in the Sig 7's are now found listed in your TM's and TM-type parts manuals.



Dear Half-Mast,

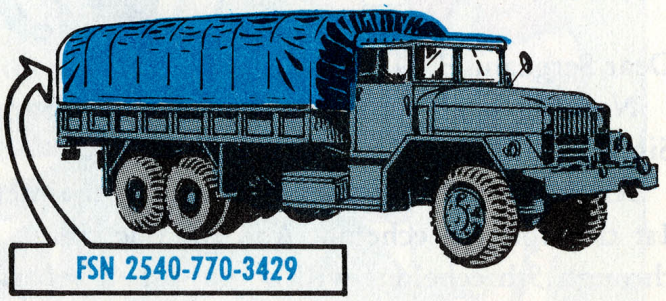
Help! We've got a couple M55 5-ton missile support cargo trucks with the extra long wheel base, and we need paulins to go with them. Can you give us the stock number? Can't seem to find it anywhere in the SM's and TM's.

CWO W. J. M.

Dear Mr. W. J. M.,

Right! The paulin for cargo body, 5-ton, XLWB, M55, has been assigned FSN 2540-770-3429 (Ord 7392938).

Half-Mast



NOT NEEDED

Dear Half-Mast,

How about straightening out me or the inspector who gigged us after giving our Nike-Ajax missiles a going-over?

There is a self-locking nut on the end of the propulsion lanyard. And the nut gets adjusted to 1/8 inch from the machined edge of the flange on the booster thrust ring assembly. You had something on this in PS issue 103.

Well . . . this inspector said that there's supposed to be a washer, 7/8-in OD, 3/16-in ID, between the nut and the washer. But he couldn't show me any publication that put it there. And it's not mentioned in TM 9-5016-2.

SFC N. W.

Dear Sergeant N. W.,

I have to go along with you. There's nothing anywhere that calls for a washer going between the nut and the flange.

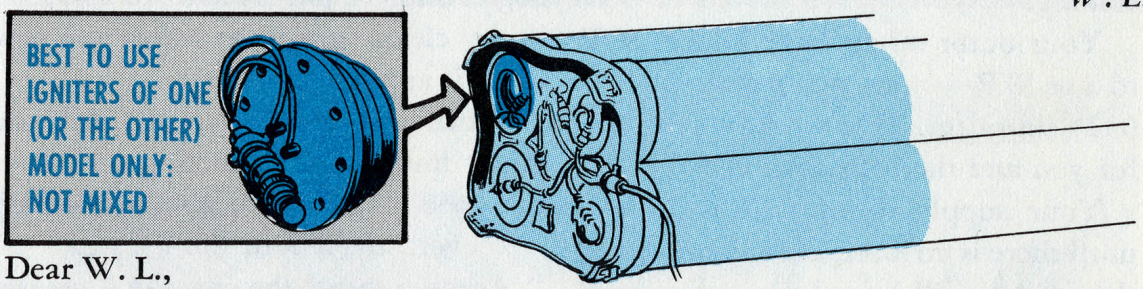
Half-Mast

TRUE IGNITERS

Dear Half-Mast,

Should the rocket motor igniters for a Nike-Herc all come from the same lot? Seems important that they should, but we have no info on this.

W. L.



Dear W. L.,

Although the M24 igniter has four M1A1 squibs, and the M65 igniter has four M3 squibs, the two models are identical and they are interchangeable.

There's no requirement which makes it SOP for all igniters to come from the same lot, but it is recommended that the models not be mixed on the M42 Nike-Herc rocket motor.

It's best to use igniters of one (or the other) model only. And whenever possible, all the igniters for the M42 rocket motor should come from the same lot.

Half-Mast

Dear Half-Mast,

An inspector gigged our outfit for using GAA instead of WP lubricant in the water pump of our commercial type trucks. I maintain that SB 725-9150-1 (Mar 58) gives us the authority to use GAA.

Who's right? *Sgt D. L. G.*

Dear Sergeant D. L. G.,

'Taint that simple, Sarge.

SB 725-9150-1 allows you to use any one of these three for water pump lubrication — WP lubricant, GAA MIL-G-10924 (ORD) Amendment 3 or GAA MIL-G-10924A (Rev. A).

If you were using the Amendment 3 or the Rev. A type of GAA you are in the clear. On 'tuther hand, the three old types of GAA, the MIL-G-10924 (ORD) or the GAA Amendment 1 or Amendment 2 are used only for chassis lubrication. If you were using them for water pump lubrication you had a gig coming.

Your outfit might have a local SOP to use WP (water pump spec VV-G-632) lubricant. That would be the law for you and the inspector.

Your supply depot will issue WP until there is no more left to issue. After that, GAA will be substituted regardless of any local SOP.

However, you should continue to requisition WP until you can't get any more of it.

It can get downright confusing if you have WP lubricant in the water pump of one truck and GAA in the water pump of the truck next to it.

The reason is that Amendment 2 and 3 and Rev. A greases will mix fine with each other but not with any other greases, not even with Amendment 1 GAA.

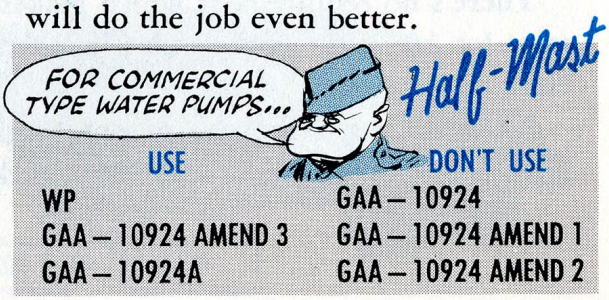
So-o-o, if you use both WP lubricant and GAA, you have to remember which water pump you used which on.

Most outfits have found that the best deal is to standardize on modern-type GAA and use it for all water pump lubrication.

'Course, the first time it is used, you have to be sure and get all the old grease out. On chassis lubrication you don't have to bother, but wheel bearings, bogies and CV joints have to be washed in dry cleaning solvent before the new GAA is applied.

When you open a can of GAA you might find some oil floating on top of the grease. If you do, pour the oil off . . . never mix it into the grease.

Another thing, the new GAA greases have a little different color and not so much fiber as the old GAA, but they will do the job even better.



CHANGING ID PLATES

Dear Half-Mast,

Where do I find info on changing nomenclature plates on items which Ordnance gains from some other tech service?

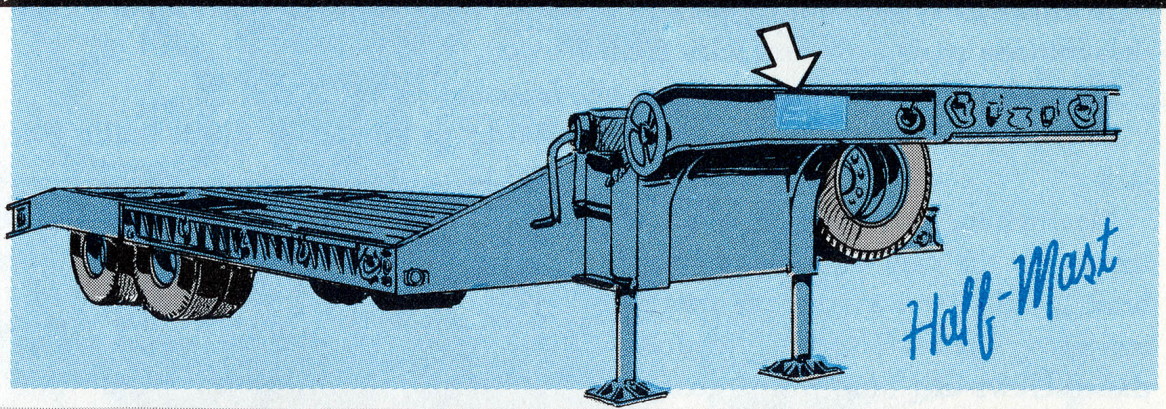
Is there, for example, an Ordnance publication like SB 5-70 (Aug 58) "Reportable Engineer Equipment and Instructions for Installing Equipment Identification Plates"?

A. G.

Dear A. G.,

Nope. Organizational maintenance people are not authorized to work over nomenclature plates on Ordnance materiel. Although the plates're not normally stocked as repair parts, when you need 'em for Ordnance equipment you can ask your Ordnance support to get 'em for you through normal supply channels. They'll get them from Red River Ordnance Depot, Texarkana, Texas, through their respective distribution depot.

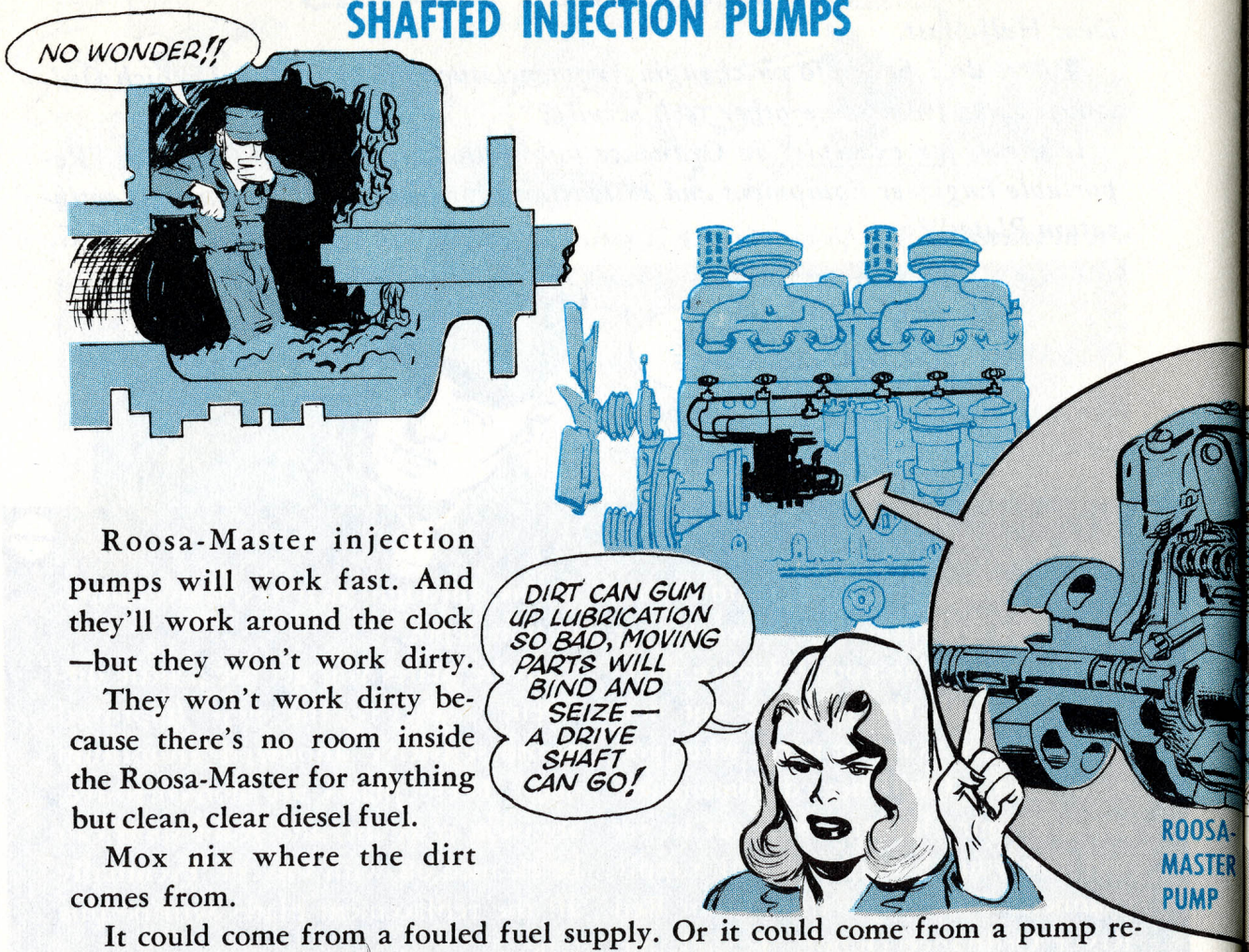
If the plates you get are a little different . . . they're the new improved photo-sensitive anodized aluminum ones. These plates are non-corrosive, abrasion resistant, and paint spots can be cleaned off with solvent. Eventually all the replacement plates will be this type.



PUBS FOR M543 WRECKER

Here are the pubs you need to keep your M543 wrecker in shape. TB 9-2320-211-12/1 (Oct 61), TM 9-2320-211-20P, Changes 1 thru 3 and TM 9-8028. Third thru fifth echelons will want to get hold of TB 9-2500-203-35/1 (8 Sep 61) for info on the crane of the M543.

SHAFTED INJECTION PUMPS



Roosa-Master injection pumps will work fast. And they'll work around the clock —but they won't work dirty.

They won't work dirty because there's no room inside the Roosa-Master for anything but clean, clear diesel fuel.

Mox nix where the dirt comes from.

It could come from a fouled fuel supply. Or it could come from a pump replacement unit that wasn't flushed 100 per cent clean before it's installed.

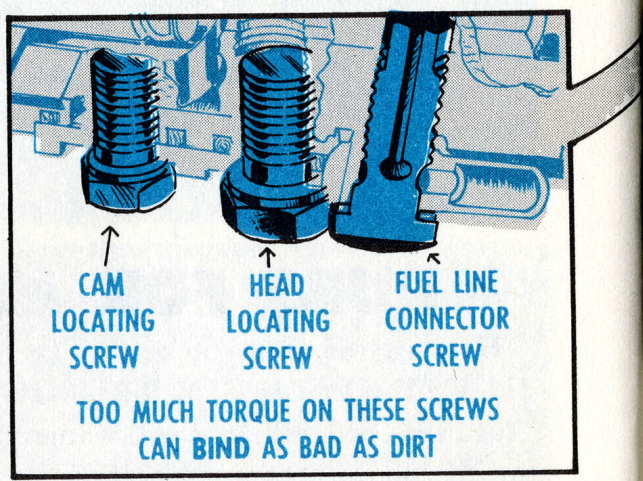
In either case, dirt builds up extra pressure, or it gums up lubrication so bad that moving parts bind and seize from friction.

Zing goes the drive shaft—scratch one injection pump.

So it takes clean fuel in a clean Roosa-Master to keep your diesel ballin' the jack.

Meanwhile, you want to watch the torque on the cam locating screw, the head locating screw, and the fuel line connector screws. Too much torque on those screws can bind inside action as bad as dirt.

Of course you can do everything right and still have trouble with a pump that's defective in the first place. In a case like that, best thing to do is fire off your UER before sundown the same day.



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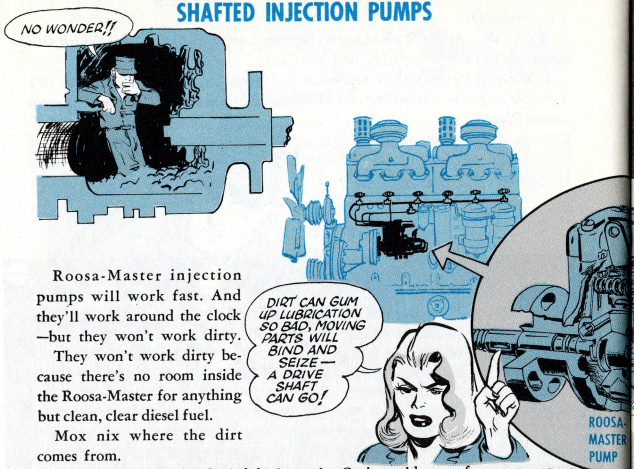

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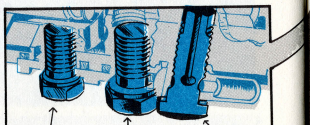
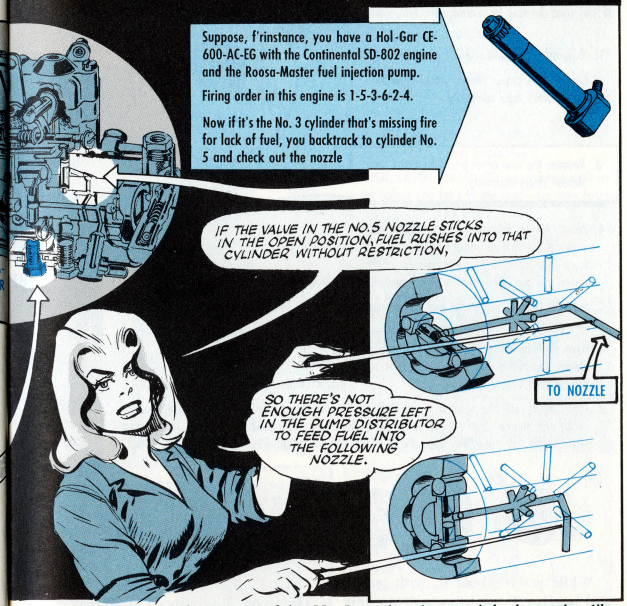


STUCKEN-SUCKEN NOZZLES

Next time you find a diesel cylinder that's missing fire for lack of fuel, you don't want to be too quick to pin the rap on the fuel injection pump.

If the injection pump is the single-cylinder type, like the Roosa-Master, a stuck nozzle valve could be interfering with fuel distribution.

The nozzle you want to check is the one on the cylinder that fires just before the cylinder that's getting no fuel.



Once you get the gum out of that No .5 nozzle valve, put it back together like it says in TM 5-6115-230-20. Chances are that's all your Hol-Gar needed to put the No. 3 cylinder back in business.

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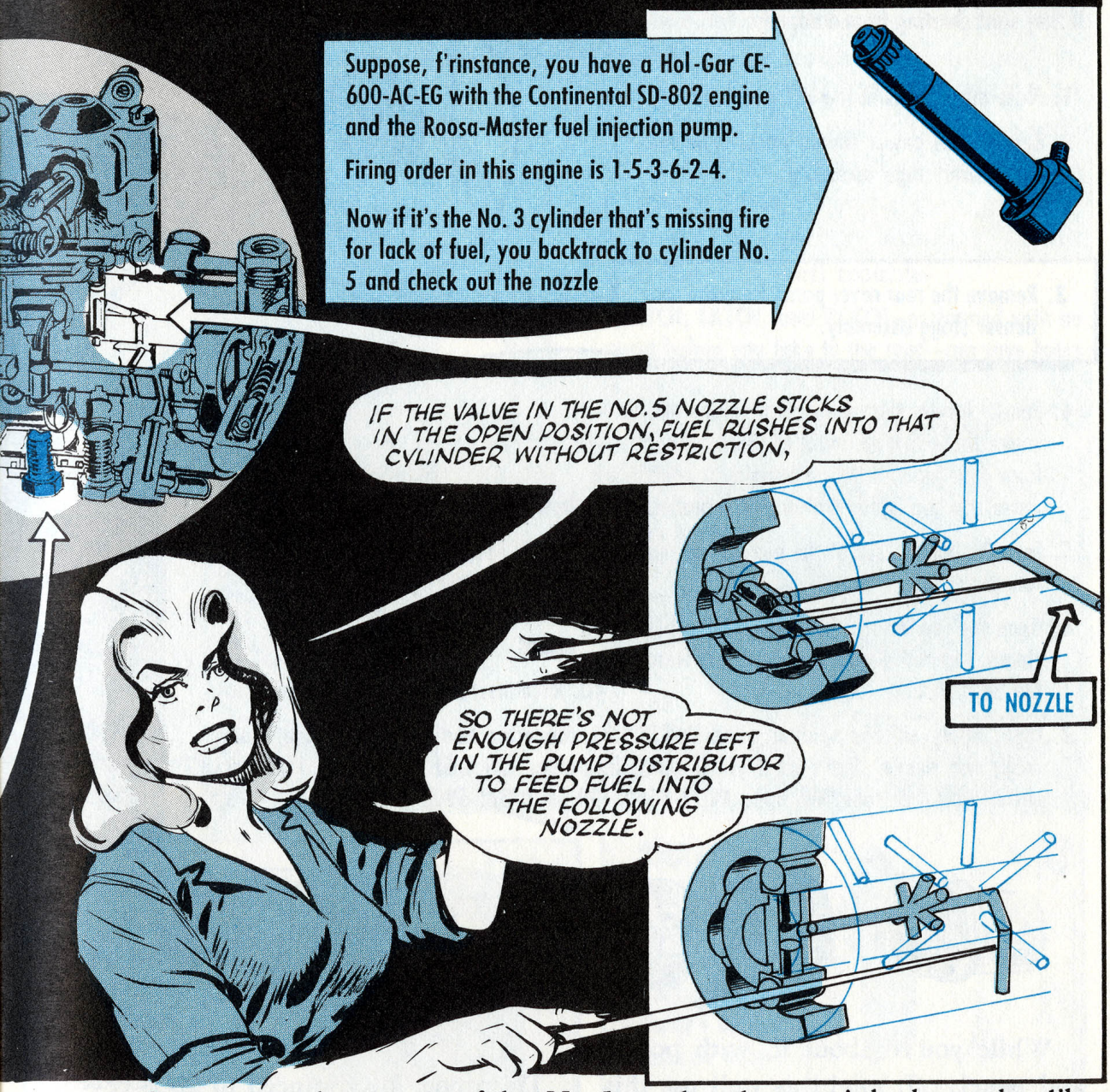

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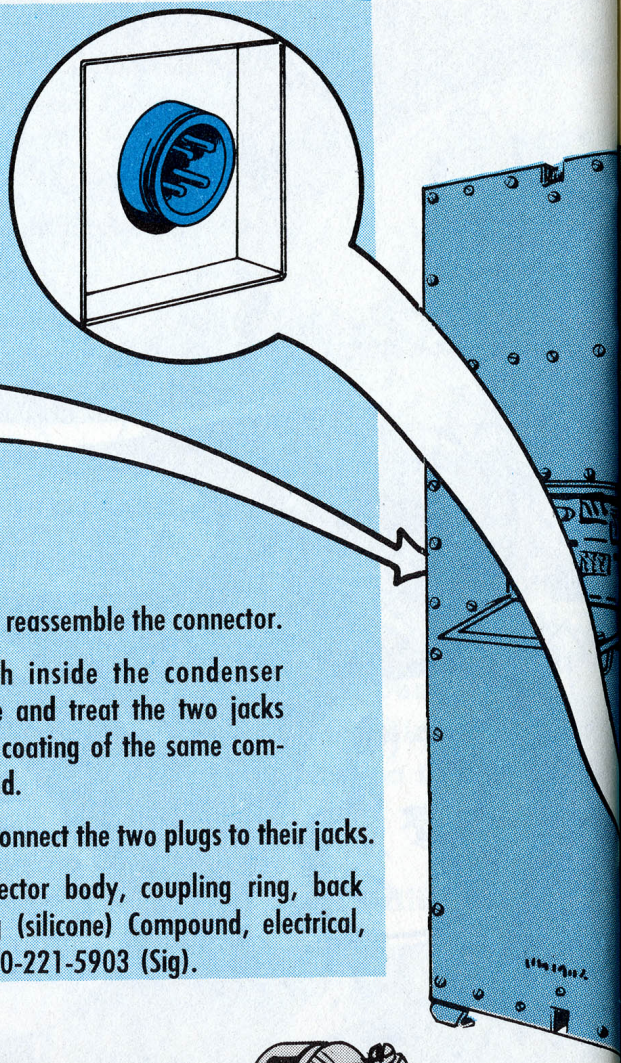
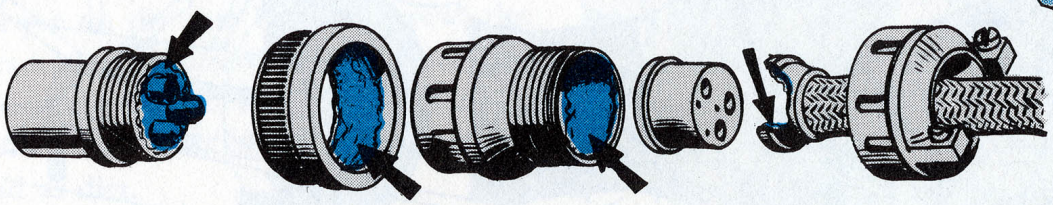
CONNECTORS GOT THE SHORTS?

You know those two electrical connectors that join the condenser and the evaporator stage assemblies in the Fairchild Stratos air conditioner, Model VEA4-3?

If they start shorting from dampness, here's what you do.

1. Place all controls in the OFF position.
2. Remove the power supply panel from the evaporator stage assembly.
3. Remove the rear cover panel from the condenser stage assembly.
4. Reach inside the evaporator unit, and snake those two electrical connector plugs from their jacks. If the coupling nuts won't move, tap 'em lightly with a rubber mallet.
5. Ease the harness out of the box where you can work on it.
6. Open the connector, sliding back the cable clamp, tapered sleeve and grommet from the back shell.
7. Then, apply silicone sealing compound to the connector body, coupling ring, back shell, and sleeve. Here's what you'll want: Insulating (silicone) Compound, electrical, paste form, 8 oz tube, Mil. Spec. MIL-1-8660, FSN 5970-221-5903 (Sig).
8. Now, reassemble the connector.
9. Reach inside the condenser stage and treat the two jacks to a coating of the same compound.
10. Reconnect the two plugs to their jacks.





While you're about it, with power and panels off, might as well use this same procedure to pack all other similar connectors and plugs on this equipment. Dampness could bother them, too.

This done, all you need to do is replace the panels, connect the power, and you're set to begin a damp free operation.

CONNECTORS GOT THE SHORTS?

You know those two electrical connectors that join the condenser and the evaporator stage assemblies in the Fairchild Stratos air conditioner, Model VEA4-3?

If they start shorting from dampness, here's what you do.

1. Place all controls in the OFF position.
2. Remove the power supply panel from the evaporator stage assembly.
3. Remove the rear cover panel from the condenser stage assembly.
4. Reach inside the evaporator unit, and snake those two electrical connector plugs from their jacks. If the coupling nuts won't move, tap 'em lightly with a rubber mallet.
5. Ease the harness out of the box where you can work on it.
6. Open the connector, sliding back the cable clamp, tapered sleeve and grommet from the back shell.
7. Then, apply silicone sealing compound to the connector body, coupling ring, back shell, and sleeve. Here's what you'll want: Insulating (silicone) Compound, electrical, paste form, 8 oz tube, Mil. Spec. MIL-1-8660, FSN 5970-221-5903 (Sig).
8. Now, reassemble the connector.
9. Reach inside the condenser stage and treat the two jacks to a coating of the same compound.
10. Reconnect the two plugs to their jacks.

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SNATCH, LATCH AND PATCH

Happens you have an air conditioner, like the 38,000 BTU Fairchild Stratos VEA4-3, hung onto the tail of your transportable missile van?

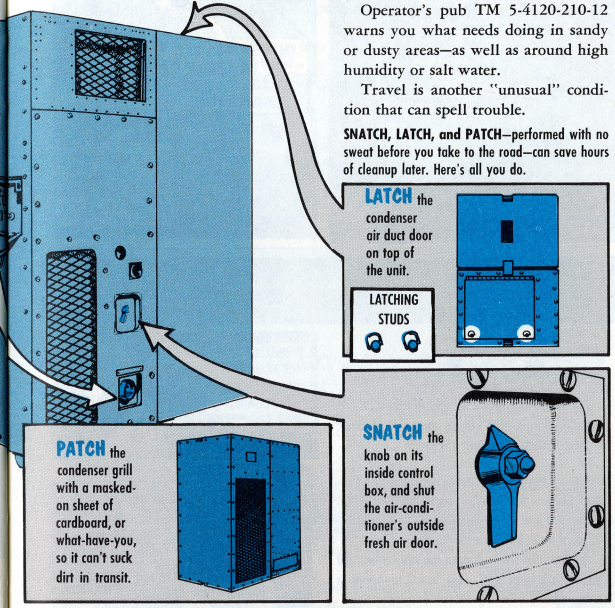
Then you want to remember this combination air cooler and heater is a house plant, designed to lead a sheltered life.

When you take it outdoors, and hang it out there bare as an ant's afterdeck, practically all its operations are performed under "unusual conditions."

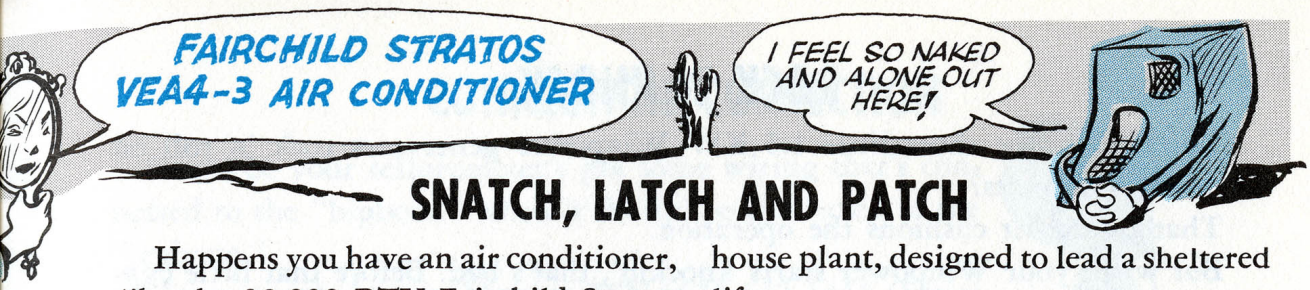
Operator's pub TM 5-4120-210-12 warns you what needs doing in sandy or dusty areas—as well as around high humidity or salt water.

Travel is another "unusual" condition that can spell trouble.

SNATCH, LATCH, and PATCH—performed with no sweat before you take to the road—can save hours of cleanup later. Here's all you do.



Easy does it, and your rig arrives in shape to operate.



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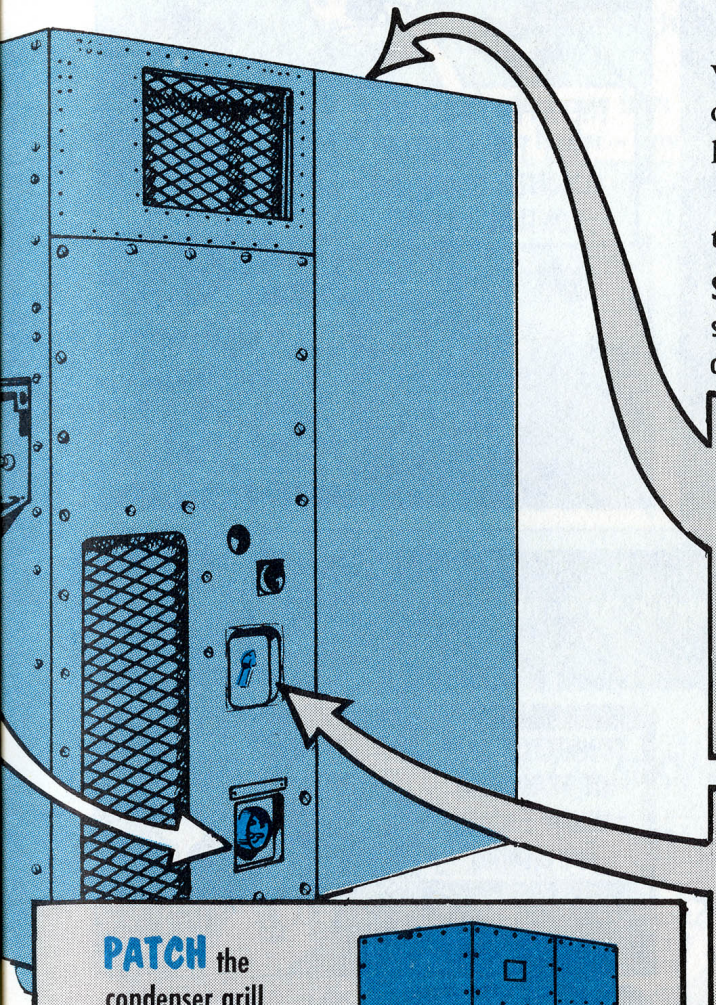
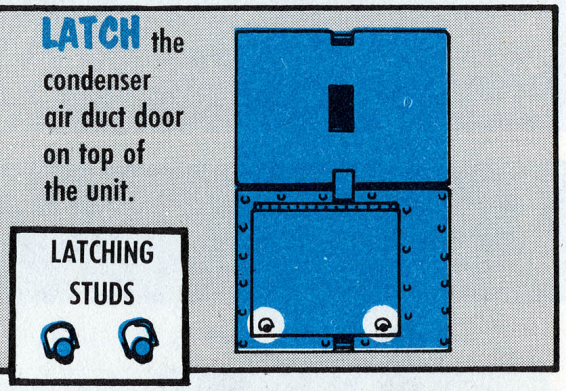
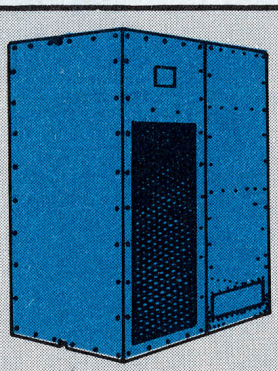


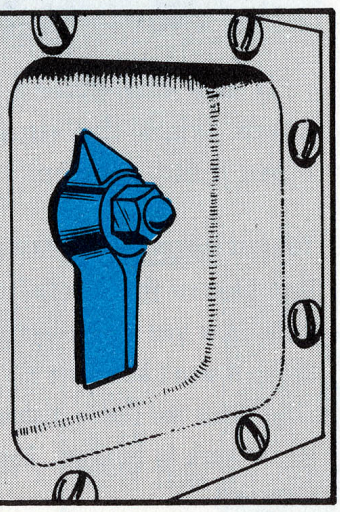
LATCH the condenser air duct door on top of the unit.



PATCH the condenser grill with a masked-on sheet of cardboard, or what-have-you, so it can't suck dirt in transit.



SNATCH the knob on its inside control box, and shut the air-conditioner's outside fresh air door.



Easy does it, and your rig arrives in shape to operate.

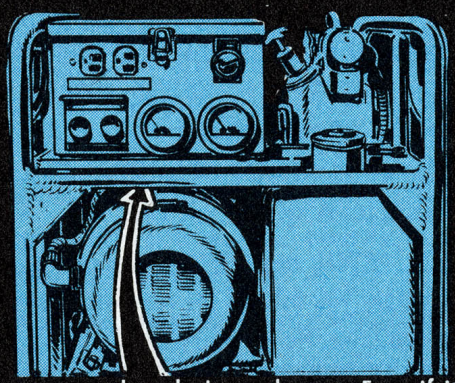
ROCK 'N KNOCK

You know how those little 1.5 KW Winpower generators rock 'n roll on their shock mounts?

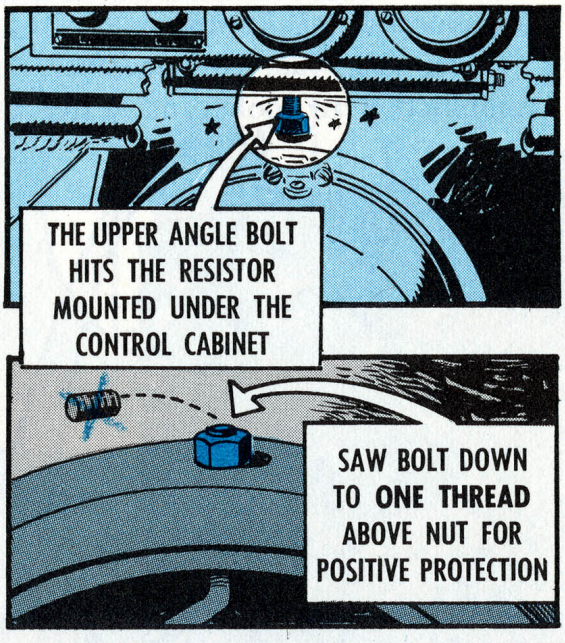
That's good—it cushions the operation.

But when your Winpower starts knockin', that's bad. Before that little egg-beater knocks itself into a deadline, here're two places to spot the trouble.

First, you cock your left eye at the fixed resistor under the control cabinet. Could be the upper angle bolt in the end bell is bangin' away at the resistor. If so, it's OK to saw the stub end of that angle bolt



down to one thread above the nut. Even if it's not knockin' now, better saw it down for luck, before it bugs the resistor.

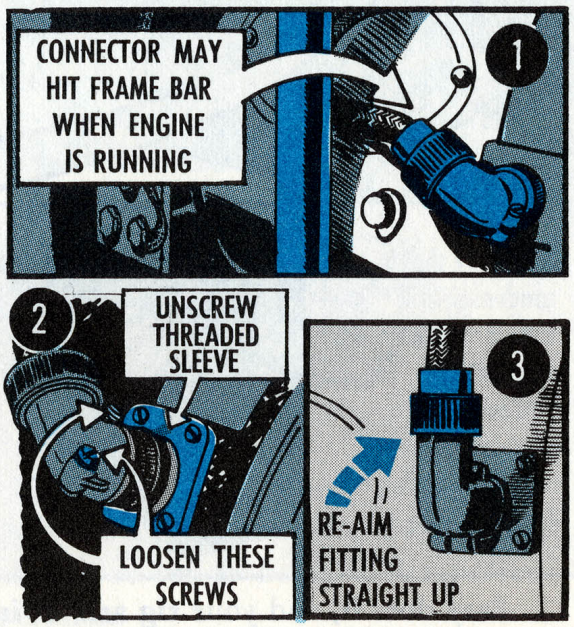


Next, you cock your right eye at the clearance between the frame member and the cable connector on the left side of your Winpower.

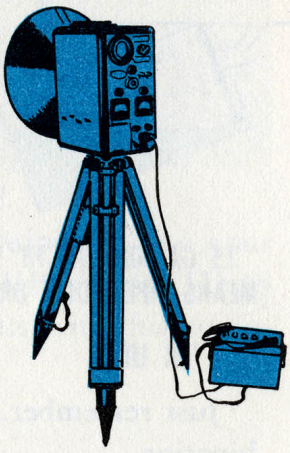
If the connector's close enough to knock when the rig is runnin', better move it out of harm's way.

You just loosen the two little screws in the connector, then unscrew the threaded sleeve from the receptacle. Now you can re-aim the "L" fitting straight up, so it won't bang into the frame.

Screw back the sleeve, tighten the two screws, and you're back in business. Rock 'n roll, si—knock 'n bang, no!



CONNECTION CORRECTION



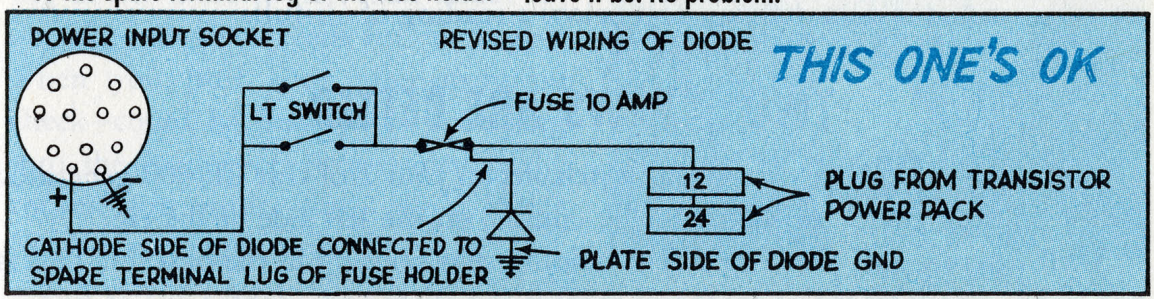
Could be your tellurometer's got some wiring that's connected to the "hipbone" when it should be connected to the "legbone."

Happens only in some Masters, FSN 6675-542-1415 (Serial 507 thru 617), and some Remotes, FSN 6675-542-1416 (Serial 615 thru 836).

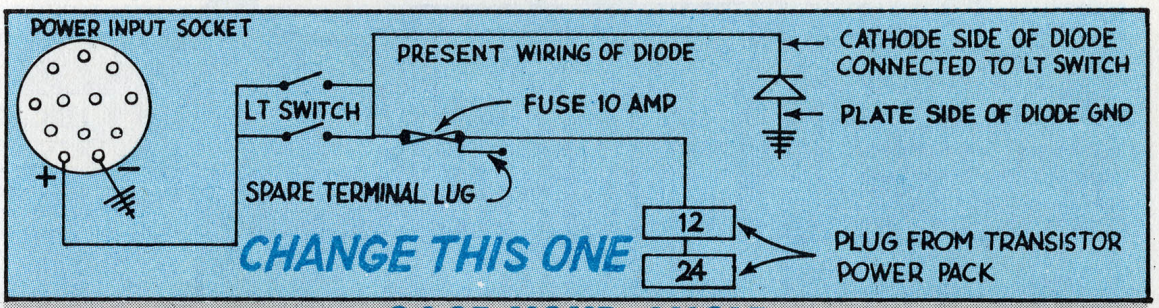
But if you have one of these units, try this:

Find the wire that runs from the cathode side of the diode mounted on the tray in the lower right side of both instruments.

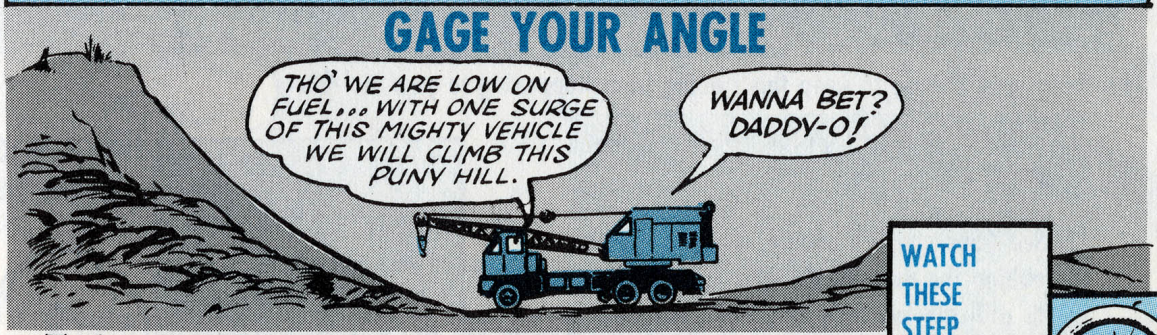
All you want is to trace the wire that runs from the cathode side of the diode. If it's connected to the spare terminal lug of the fuse holder—leave it be. No problem.



But if this wire is connected to the light switch—disconnect it. Then re-connect it to the spare terminal lug of the fuse holder, where it belongs.

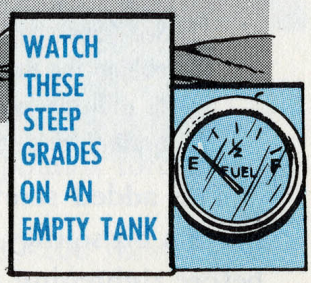


GAGE YOUR ANGLE

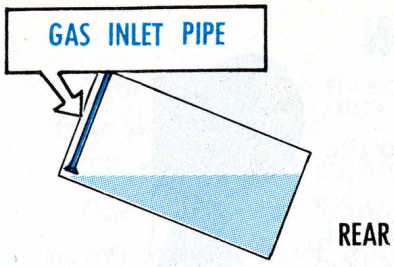


Toting your Garwood crane-shovel piggy-back is no sweat for your FWD crane-carrier.

But—with the fuel gage reading low, trying to climb a steep grade with the rig might be a different story.



PS MORE



15 GALLONS AT 18° ANGLE
(MEANS PIPE WON'T DRAW FUEL)

When your fuel gets down below 15 gallons—about ¼-full—and the carrier is on an 18-degree angle in a forward position, the end of the inlet to the fuel stand pipe is left high and dry. This means the fuel line is left without fuel and there's nothing for the fuel pump to deliver.

And, putting it mildly, you've got yourself a shovel-full of trouble.

FILL 'ER UP

Just remember, a low fuel tank and a steep hill don't make for a good combination.

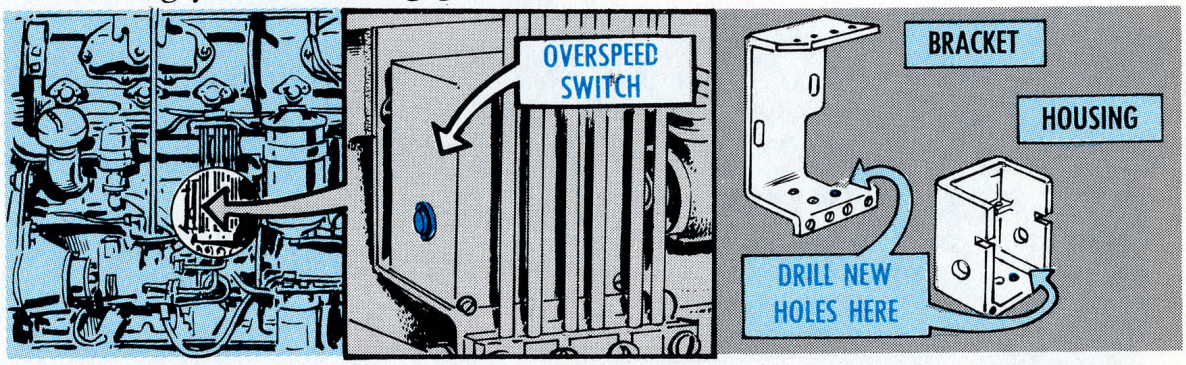
Play it safe, fill up your fuel tank before you go on any hill climbing expeditions . . . and, don't let the gage fall below a reading of ¼-full.

TWO SCREWS ARE BETTER

You know where the overspeed switch sits on your Hol-Gar CE-600 generator —in a housing that's bracketed to the engine, on the left side of the rig?

Well, there's only one cap screw holding that housing to the bracket. This is not good. The least bit of looseness throws the shaft and adapter out of line.

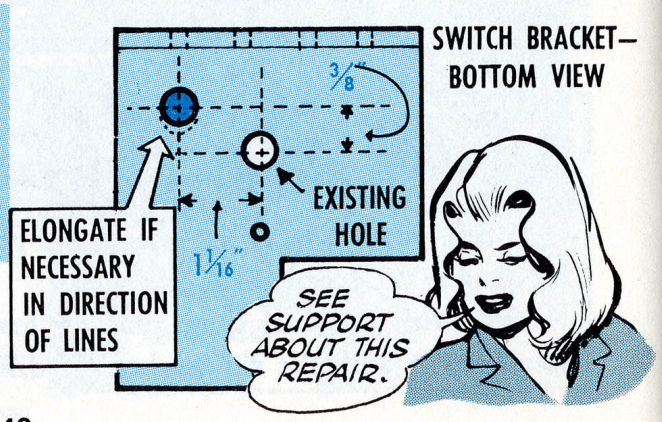
Next thing you know—zing goes the shaft or adapter.

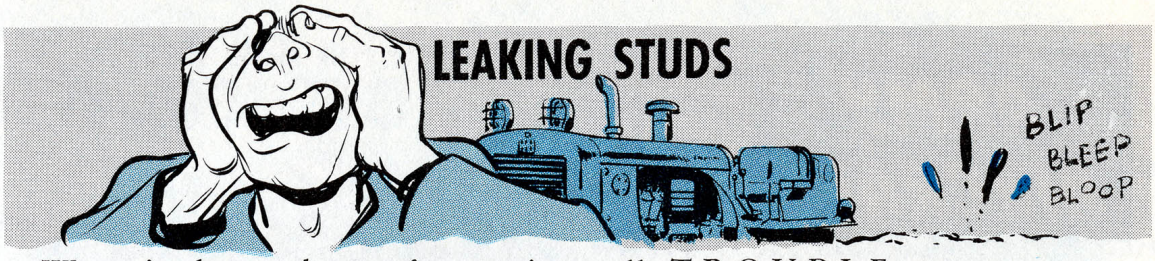


Two things you can do to keep this trouble from happening to your Hol-Gar—

1. Keep the nut tight on the existing mounting screw.
2. See your support people, soonest, about pulling the overspeed switch long enough to drill the switch housing and mounting bracket for a second screw.

The added screw hole can be elongated a bit so they can line up the shaft before tightening up on the screws.



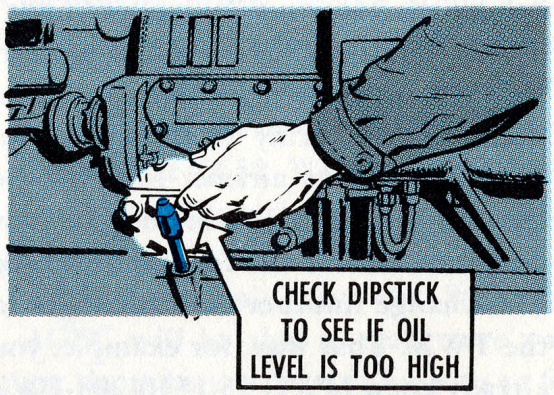


Water in the crankcase of an engine spells T-R-O-U-B-L-E.

The IHC Model UD-691 engine that powers Engineer equipment like your Unit-Rig and Barber-Greene intrenching machines and the IHC Model TD-18 or TD-20 tractors is no exception. Matter of fact, some outfits with this equipment have had a water problem already.

HERE'RE THE SYMPTOMS

If your equipment seems to be gulping down more water than usual . . . and the oil level reads full or higher when you pull your after-operation check—could be that water is leaking into the engine crankcase around the rocker arm studs. And, you'd better check it out right now.



1

There's no big deal to stopping this leak. All you need to do is to remove the rocker arm studs—the TM for your equipment has the full scoop—then, apply a sealer to the stud threads.

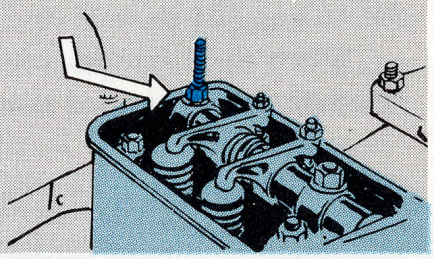
2

You can use Permatex, white lead, or any similar sealer. If you don't have any on hand, then requisition some Gasket Sealing Compound. FSN 5330-252-3391 (Ord) will get you an 11-oz tube.

3

WATCH THE TORQUE

Now, when you replace the rocker arm studs, tighten them to a torque of 15-20 foot-pounds. Then, tighten the arm stud nuts to 50-55 foot-pounds.



BE SURE THE ROCKER ARM STUDS DON'T BOTTOM

When the studs bottom, it doesn't leave enough threads at the top to install the cover. If they won't tighten to the required 15-20 foot-pounds torque—replace them.

Finally, check and set the cylinder head stud nuts at 180-200 foot-pounds torque and your rig's ready for action.

Next to not having aircraft repair parts when you need 'em, being left behind the door on a "Safety of Flight" TWX or initial distribution of aircraft pubs is most annoying to aviation types.

So-o-o, the Army is trying an improvement in its aircraft interim-type tech info message operation. The new deal is to include the **formal** MWO or TM Change **number** and **title** right in the TWX. That way, for example, you already knew MWO 55-1510-204-20/2 (22 May 61), "Revised Operating Pressures for AO-1 Oxygen System," would formalize the interim message you got on the same subject.

And the same teletype message told you to pull the TWX from your file and throw it away as soon as the printed MWO or TM showed up.

When these interim instructions are electrically transmitted as an immediate or urgent action TWX, these instructions are considered an official DA publication.

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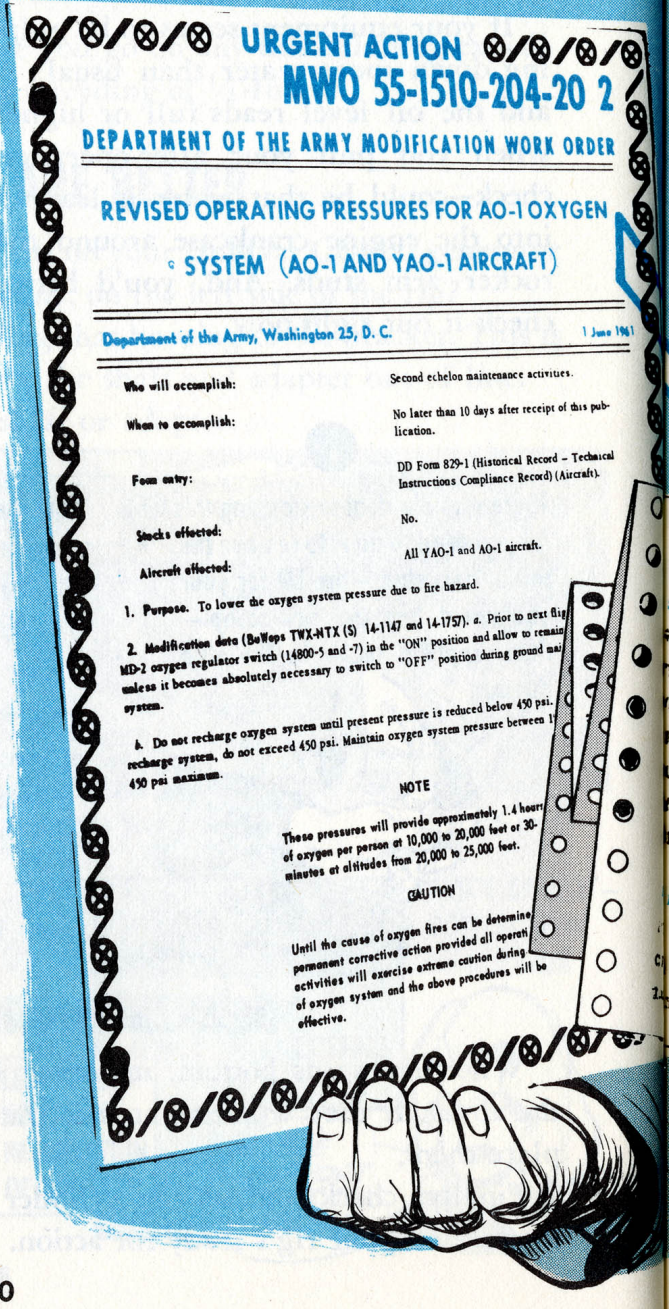
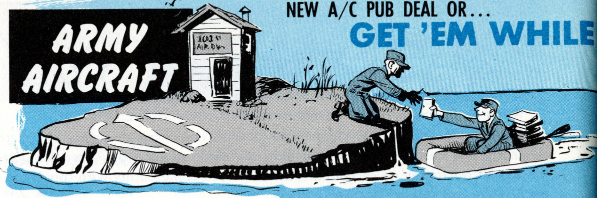

URGENT ACTION
MWO 55-1510-204-20 2
DEPARTMENT OF THE ARMY MODIFICATION WORK ORDER
REVISED OPERATING PRESSURES FOR AO-1 OXYGEN
SYSTEM (AO-1 AND YAO-1 AIRCRAFT)
Department of the Army, Washington 25, D. C. 1 June 1961
Who will accomplish: Second echelon maintenance activities.
When to accomplish: No later than 10 days after receipt of this publication.
Form entry: DD Form 829-1 (Historical Record – Technical Instructions Compliance Record) (Aircraft).
Stocks affected: No.
Aircraft affected: All YAO-1 and AO-1 aircraft.
1. Purpose. To lower the oxygen system pressure due to fire hazard.
2. Modification data (BuWeps TWX-NTX (S) 14-1147 and 14-1757). a. Prior to next flig
MD-2 oxygen regulator switch (14800-5 and -7) in the "ON" position and allow to remain
unless it becomes absolutely necessary to switch to "OFF" position during ground mai
system.
b. Do not recharge oxygen system until present pressure is reduced below 450 psi.
recharge system, do not exceed 450 psi. Maintain oxygen system pressure between 1
450 psi maximum.
NOTE
These pressures will provide approximately 1.4 hours
of oxygen per person at 10,000 to 20,000 feet or 30-
minutes at altitudes from 20,000 to 25,000 feet.
CAUTION
Until the cause of oxygen fires can be determine
permanent corrective action provided all operati
activities will exercise extreme caution during
of oxygen system and the above procedures will be
effective.



NEW A/C PUB DEAL OR...
GET 'EM WHILE THEY'RE HOT

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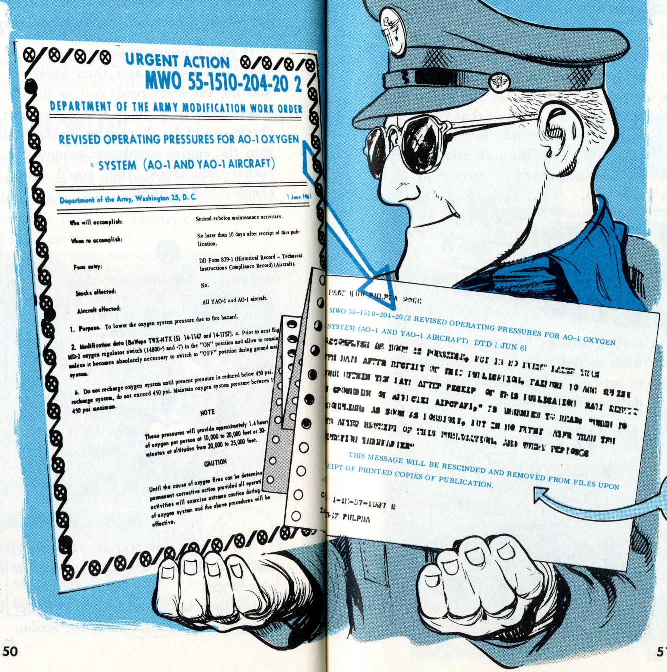


CHECK DA CIR 310-52

While we're talking about fast distribution of pubs, DA Circular 310-52 (12 July 61) also had big news. Starting just recently "Army Aviation Literature" is being distributed by **direct mailings** to every type of **using** organization in the Active Army and USAR.

Yessir, that means "down to and including" battalions, companies, detachments, teams, service schools, depots and—you name it. The mailings of your pubs will come from the AGPC (Adjutant General Publications Center) at 1655 Woodson Road, St. Louis 14, Missouri, to all units **worldwide.**

Now the only way the St. Louis AGPC will be able to make sure **you** get the pubs **you** need is for **you** to fill out your DA Form 12-5 right . . . and that's where DA Circular 310-52 comes into the picture. It tells you how to get your pubs without going through the old post publications routine.

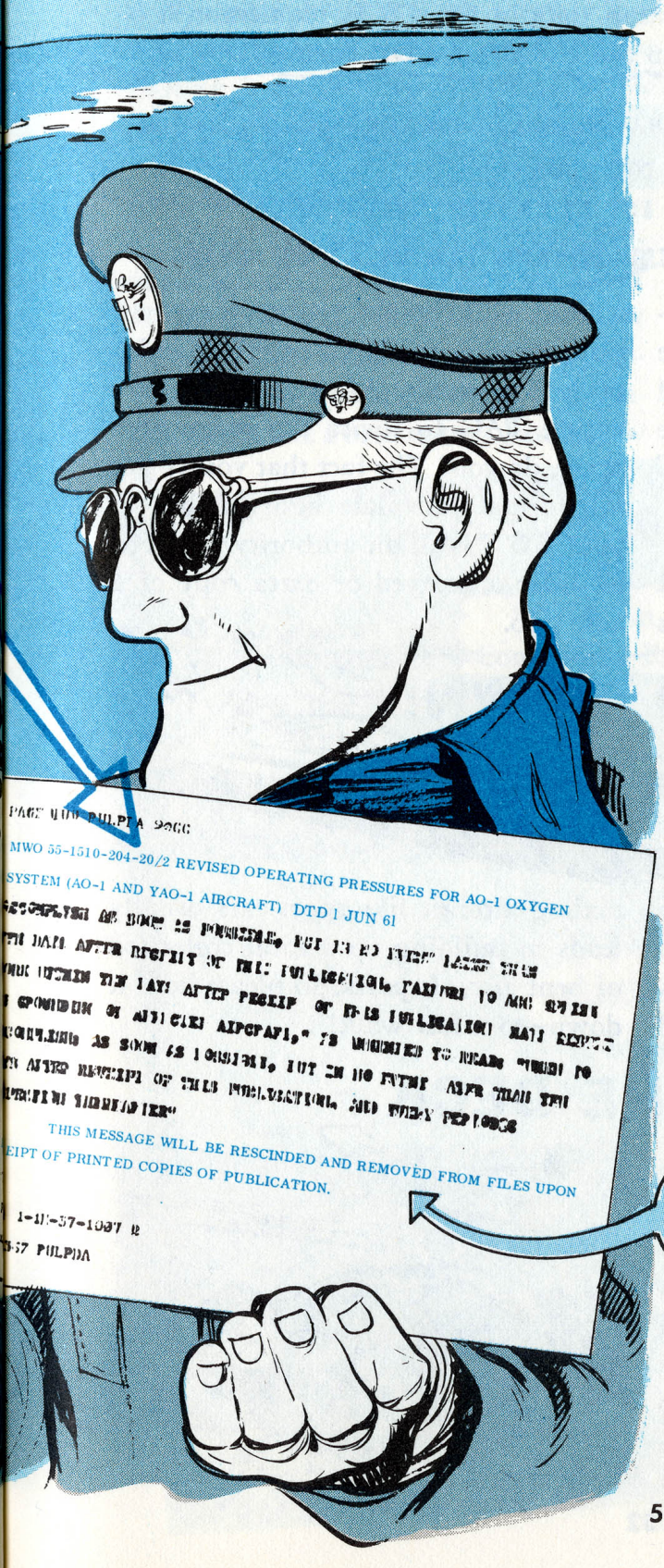
USE THE FORMAL NUMBER AND DATE

Under this send-'em-to-my-hangar deal, you're no longer going to see the old note referring you to a TWX message number. Instead, each TWX will simply read:

"This message will be rescinded and removed from files upon receipt of printed copies of publication."

Since the TWX to you and the printed publication both list the formal pub number, date and title—you won't need to refer to any message number, anyway.

THEY'RE HOT



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30 OR ORDER

Your 12-5 on file at St. Louis covers your requests for automatic distribution. But if the formal publication is not in your hands through automatic distribution **within 30 days of the publication date in the TWX,** requisition it by the formal pub number and date (from the TWX) on a DA Form 17.

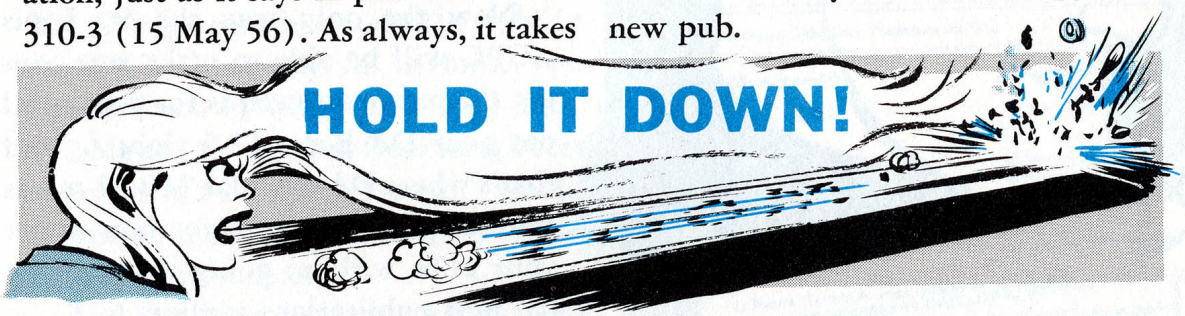
MWO 55-1510-204-20/2 REVISED OPERATING PRESSURES FOR AO-1 OXYGEN SYSTEM (AO-1 AND YAO-1 AIRCRAFT) DTD 1 JUN 61

[illegible]

DON'T PANIC—PLEASE

If you see any anxious types crowding this new system, tell 'em to please lay off and give it a chance. A careful reading of DA Cir 310-52 should make it obvious you don't want to go to TMC for any of your pubs.

The AG handles the whole pub operation, just as it says in para 25c of AR 310-3 (15 May 56). As always, it takes a little while before you see these new pubs listed in the DA Pam 310-4 index of tech manuals. After all, you don't expect TAG to revise the index each week, do you? The fact that you've got the formal pub date and number in your TWX is all the authority you need to order a delayed or extra copy of a new pub.



The call of a smoothly paved ramp or taxiway seems to make some aviation types a little too powerful in the hands and feet. Driving airfield vehicles and taxiing aircraft like sport cars usually leads to building up a local collection of bent aircraft parts. So please hold it down—to a fast walk!

HIT THE DECK

Unguided missiles! That's what rotor blades can become when a swingwing comes in for a "hard" landing. Blade bits, etc., have been known to swish through the air for several hundred yards during a clobber. So if you're near any incident or accident about to happen, hit the deck. It's your best-on-the-spot protection against these killers.

FORM ENTRY: DO IT!

Dear Windy Windsock,

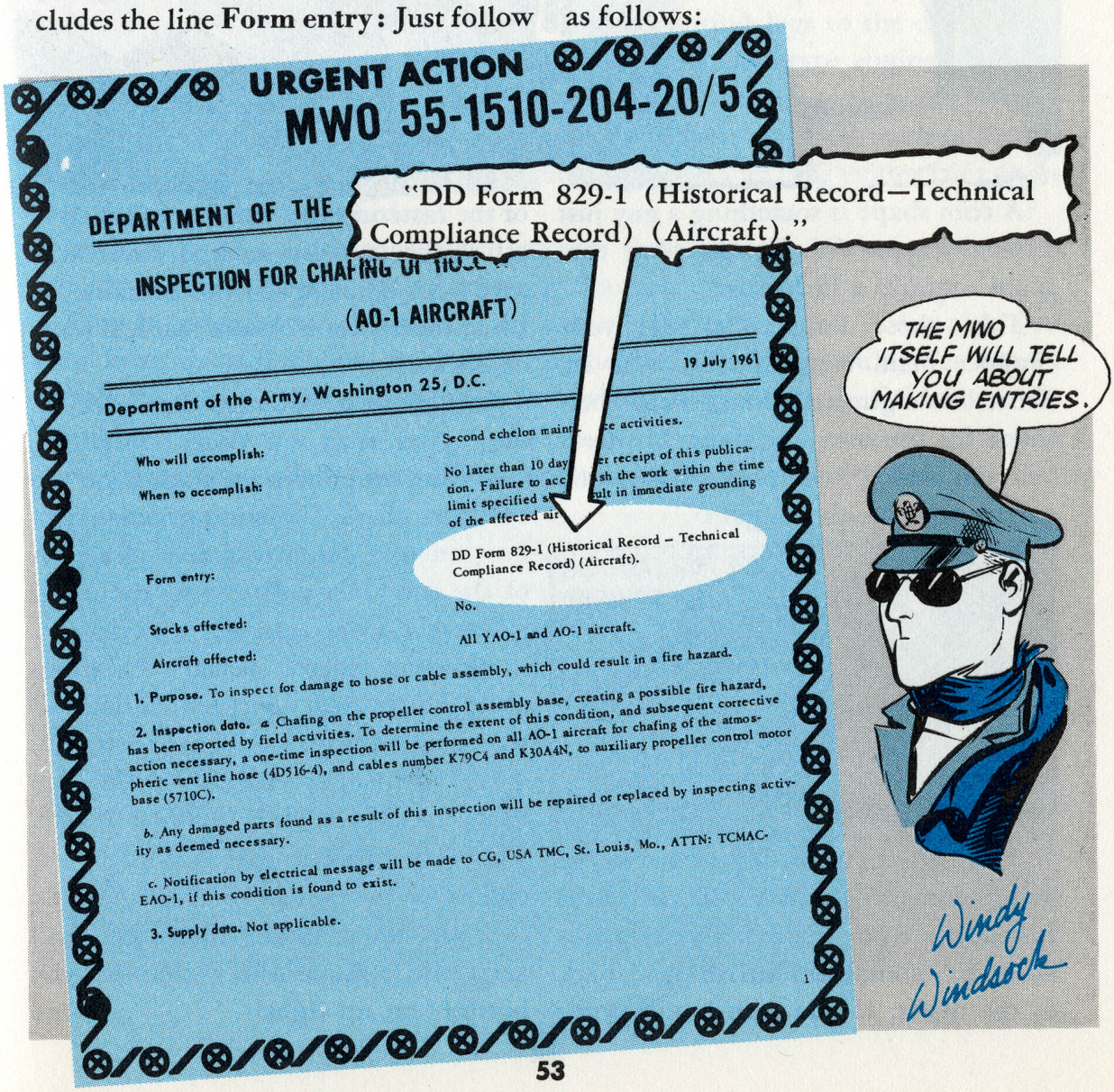
We have been reading Change 5, TB AVN 5, to mean that all TCTM per type aircraft are entered on DD Form 829-1 whether or not they apply, even though it doesn't say so in so many words. I'm talking about para 110b(3)(a) and para 110b(4)(a). Are we right?

MSgt C. C. D.

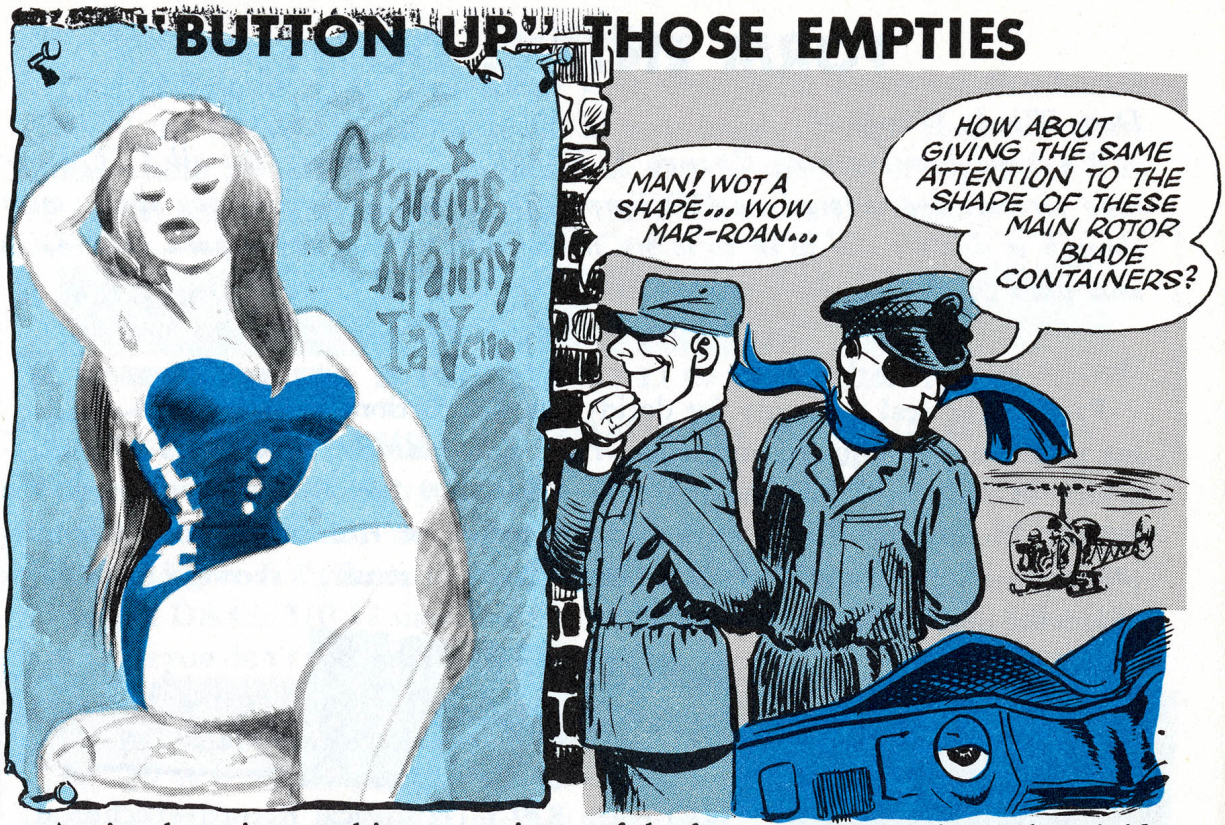
Dear Sergeant C. C. D.,

Partly. The real authority for deciding if an entry is required on the 829-1 is the TCTM (or MWO as it's now called). The format of each Time Compliance or Modification Work Order includes the line **Form entry:** Just follow the instructions.

For example, MWO 55-1510-204-20/5 (19 July 61) on "Inspection for Chafing of Hose and Cable Assembly (AO-1 Aircraft)" shows a form entry as follows:

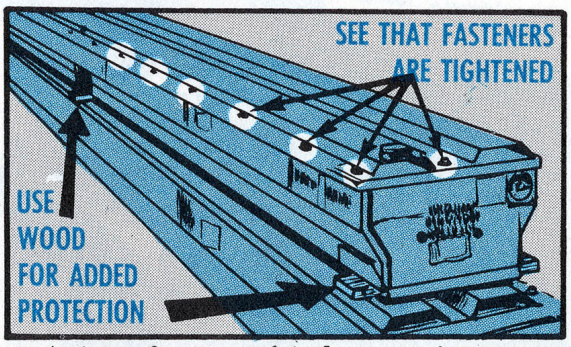


BUTTON UP THOSE EMPTIES



A trim shape is something a guy just naturally goes for. But keeping that shape requires a little care!

Take those long containers your chopper main rotor blades come in. Treat 'em right and they'll keep their shape for use over and over. Mis-treat 'em and they'll buckle or warp so you maybe can't use them again.



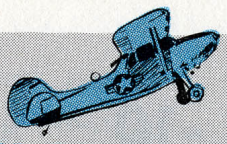
A lot of empty blade containers are being damaged 'cause all the Dzus fasteners are not secured. This happens when the containers are shipped back to the depot. If you secure only some of the fasteners you won't get that rigid effect that a fully secured cover will give you. Then when the container is lifted there's more chance that it'll warp or buckle.

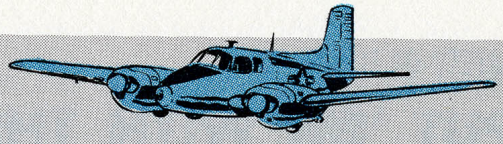
Untightened fasteners that stick up may even snag on other containers when the containers are stacked on top of each other. The sliding action you get can tear those fasteners clear out of the container and tear up the metal . . . maybe even ruin the container.

Re-using these special containers saves Uncle Sam umpteen dollars—so they deserve extra care. That's why you may find them labeled: DO NOT DESTROY—REUSABLE CONTAINERS. The only thing is they should be returned in the best possible condition.

Your rotor blade containers will keep their shape every time—if you button 'em up tight!

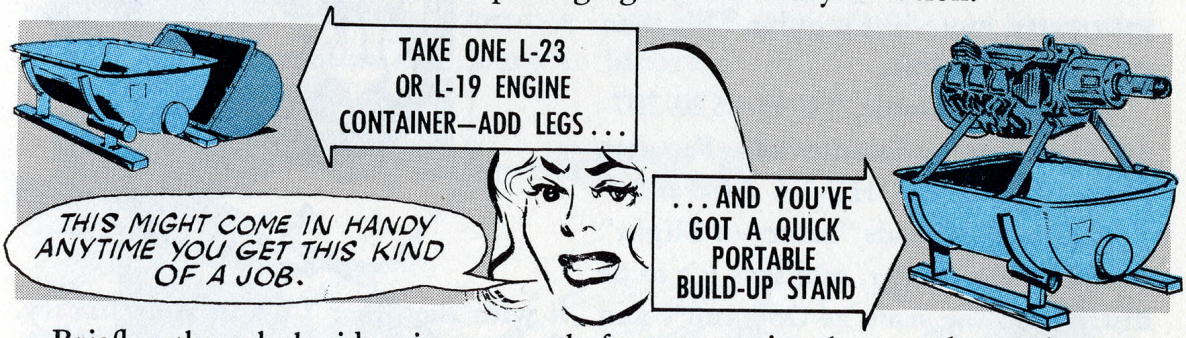
A MAINTENANCE STAND WITH EVERY ENGINE OR . . .





"INSTANT" MAINTENANCE STANDS

Take one Seminole (L-23) or Bird Dog (L-19) engine container—add legs—and you've got a quick, portable build-up stand. That's all the ingredients necessary for the latest "instant" packaging deal in Army Aviation.



Briefly, the whole idea is to attach four mounting legs to the engine container bolting flange. This gives you a lightweight, field-type engine stand for either your Seminole 0-480-1 or Bird Dog 0-470-11 and -15 engines.

The legs are made from 1½-in angle iron for these opposed engines. A different size set of legs can be made up to adapt the T-53 jet type engine containers into the same "instant" deal.

So have field maintenance make you up these leg sets. Then keep them in your bailiwick as special tools for engine changes.

This is gonna save you time . . . say about three man-hours . . . any time you may have to pull an engine change in the field. That big, bulky "L" stand, w/wheels, is fine for base shop types, but strictly no-go out in the field where the mobile troops roam.

You might say this is a step in the direction of "instant maintenance."

LIST OF MATERIALS

Part No.	Qty.	Description	Material
1	2	1½" x 1½" x 3/16" L 25" long	steel
2	2	1½" x 1½" x 3/16" L 27" long	steel
3	1	1½" x 1½" x 3/16" plate	steel
4	1	1¼" O.D. round stock 1" long	steel
5	1	1½" O.D. round stock 1" long	steel

NOTES:

1. Break all sharp edges to 1/16 radius.
2. Clean and prime in accordance with MIL-E-7729.
3. Paint in accordance with MIL-E-7729.
4. Approximate weight per set is:
   1020 steel—14.4#
   6061 Aluminum—5.1#

SAFETY-OF-FLIGHT TB's . . .

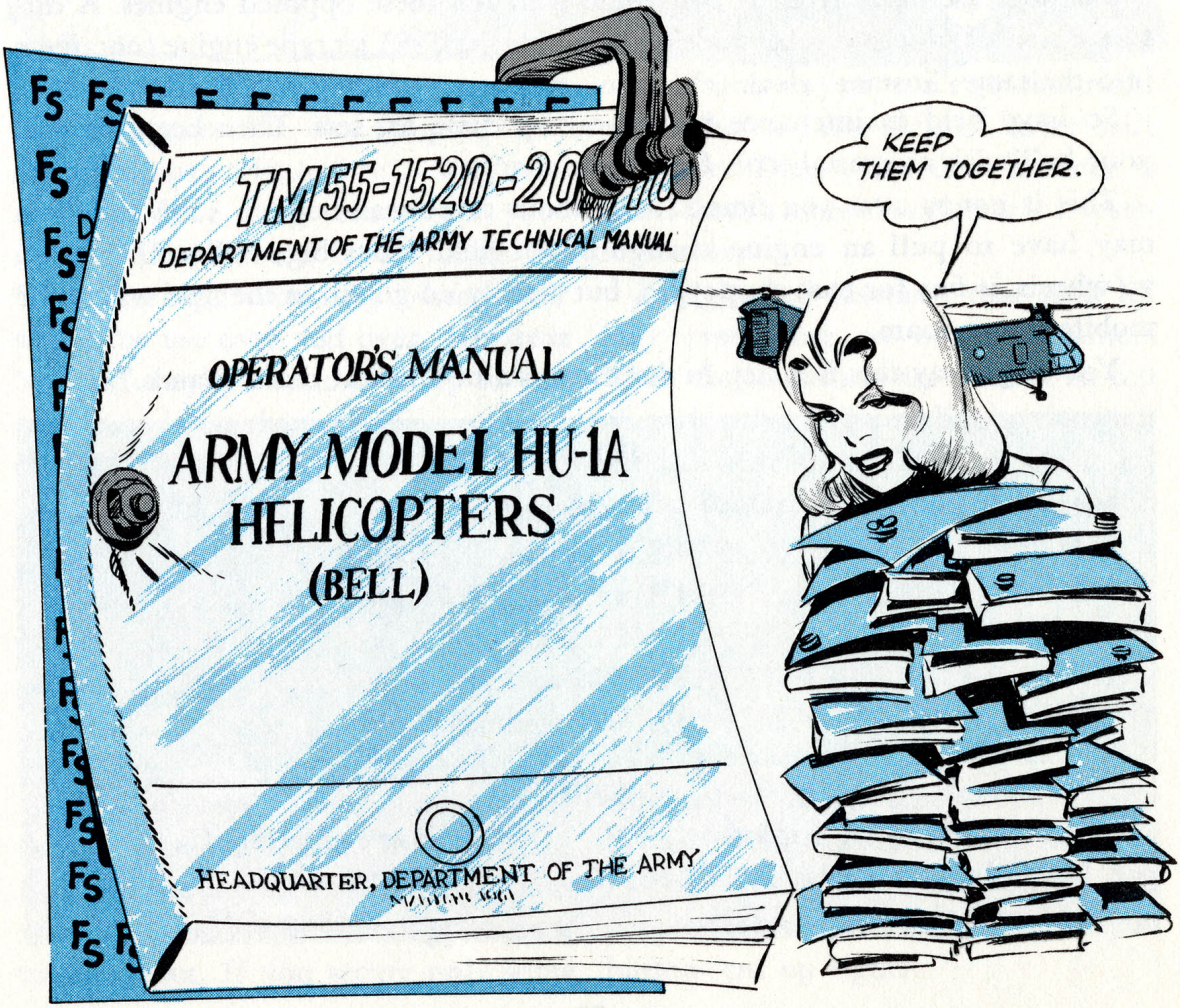
PUT 'EM WITH THE -10

Seems a few operational Safety-of-Flight supplements (now called TB's) are turning into stragglers—when they get treated more like regular TB's than priority safety info.

Take, for example, TB 55-1520-207-10/4 on "Engine Shutdown for Peculiar Noise (HU-1 and HU-1A Aircraft)."

Although it reads "Safety of Flight" in red on the border, and says it's to be distributed the same as Operator's and Crew Member's Instructions and even mentions TM 55-1520-207-10, in para 2 . . . some types may still want to file it with the other TB's in your library.

Although this is just a temporary arrangement, a tech bulletin is the only way the Army has right now of supple-

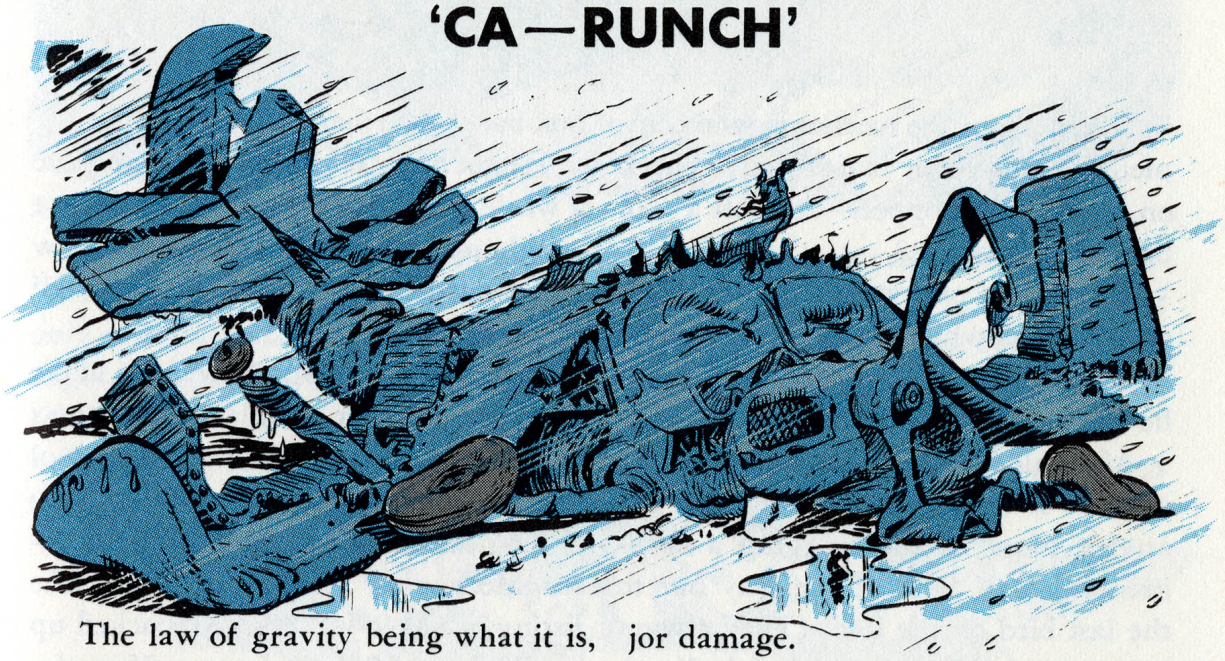


menting a tech manual and, since the -10 Operator's and Crew Member's Instructions is cataloged as a TM, all supplements have to be called TB's.

But the average Army library usually keeps its TB's filed separately. This is real fine for any TB that supplements a -20 or -34 maintenance manual. But it's just the opposite for Safety of Flight TB's.

So make sure the word gets around that Safety of Flight TB's go directly to everybody cleared to operate the aircraft concerned and any extra copies are filed with the -10 in your unit library.

'CA—RUNCH'



The law of gravity being what it is, a bird does come in for a hard landing or clobber now and then and maybe end up in more than one piece. But when a **parked** ship gets picked up by gusty winds and lands with a crunching sound in a heap—that's something you don't expect!

But that's just what happened recently to a Bird Dog (L-19). In the face of an approaching wind and rain storm the bird was left all by its lonesome—without even one mooring line to keep it company. When the storm broke wind gusts lifted that 2100-lb plane just as easy as you please, and set it back down not-so-easy—causing major damage.

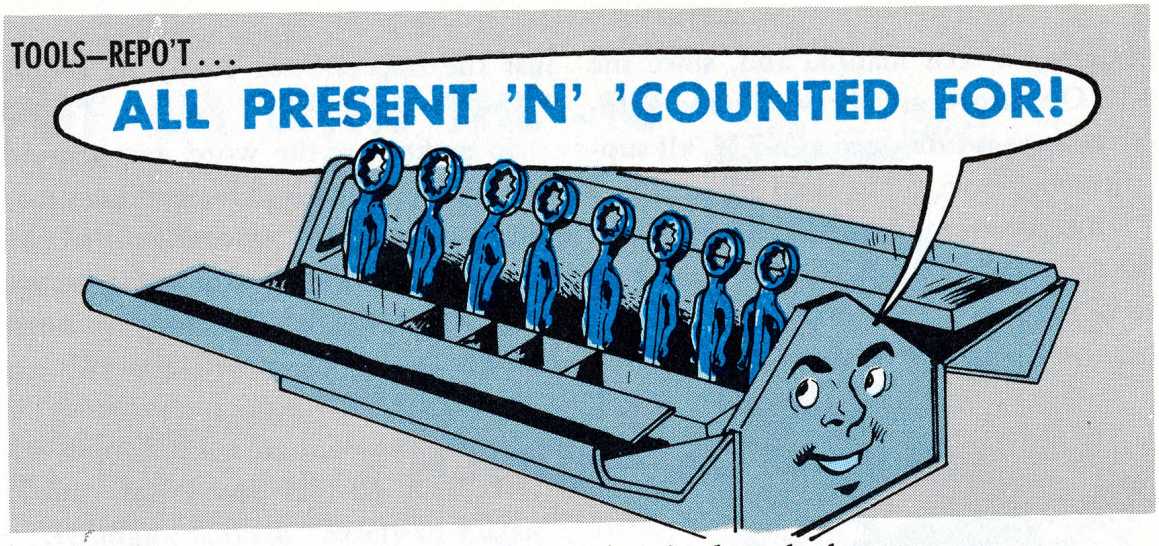
So how come that bird wasn't moored? Well . . . maybe someone overlooked giving the word to tie down, so the ground crew didn't follow through. But more'n likely the wind gusts turned out to be stronger than expected.

Your weather outfit can give you reliable info on the expected velocity of storm winds. But you can never really be sure how strong the wind gusts will get.

'Course the best protection you can get from any storm is to move your plane into a hangar. If one's not handy the next best bet is to tie it down like it says in your -20.

TOOLS—REPO'T . . .

ALL PRESENT 'N' 'COUNTED FOR!



Heard about the mechanic who completed a top-notch maintenance check on one of his choppers—and left a tool behind to prove it?

Yep . . . no one was more surprised than he was when an inspector tapped him on the shoulder with a box wrench he left in the rotor head.

After all he'd been working around aircraft so long that he knew all the angles. None of that lugging a back-breaking tool box all the way out to the last bird on the line. (They always seem to park 'em on the end of the line.) All he needed to do any job was a few assorted wrenches and other tools stuffed in his pockets or clutched in his sweaty little palm.

Of course he never used to be careless with tools. During his Army schooling he learned a mighty good habit of working right out of the tool box. So he was always sure none of the tools was left behind to foul up an engine or jam any of the controls.

But as he got his feet wet on one job after another he got so confident that he went off the deep end and started taking short cuts—like leaving his tool box back at the hangar.

He got away with short cuts for quite a while until finally his over-confidence caught up with him. It just goes to show you a good habit is worth keeping—all the time.

After every job you'll want to make sure you haven't misplaced any tools by pulling a detail check of your tool kit for completeness.

You can check out the Aircraft General Mechanic's Tool Kit against the listing in SM 9-4-5180-A70, backed up by PS Issue 92 for pictures. If you're working with any of the A, B, or C organizational maintenance kits, you can check them with SM 9-4-5180-A05 along with a copy of PS 110. Since responsibility for these kits has been transferred from Ordnance to the Transportation Corps by AR 701-5180 (14 June 61), these kits will be listed in the SM 55-series pubs in the future.

So-o-o . . . when you use your tools keep an eye peeled on 'em until they're back inside your tool box. Your aircraft may live to a ripe old age if all your tools are present and accounted for.

Dear Windy Windsock,

When is TB AVN 23-16 used as authority for test flights and when is the applicable -6 inspection handbook used? I was told that TB AVN 23-16 was used only in a few instances where the -6 would not apply (such as one hour T/F for engine or cylinder change)—also that TB AVN 5 would govern T/F entries on DD 781-2.

We have people here that say 23-16 is the authority for all test flights and form entries.

MSgt C. C. D.

Dear Sergeant C. C. D.,

Those people are right! TB AVN 23-16 (25 Jul 61) tells you the **conditions** under which you're **authorized** to make test flights for **all** aircraft. Each -6 or -20's inspection section only tells you the **how** and **what** to check when the TB has already made it clear that a test flight is required.

The TB is also the authority for using a test flight check sheet, while the -6 or -20 just fills in the details on how to make up this check sheet.

Furthermore, TB AVN 23-16 requires test flight entries on the DA Form 2391-2 (the old 781-2) and TB AVN 5 does **not** cover test flights. In fact, TB AVN 5, para 4i, says test flights are taken care of according to TB AVN 23-16. (It actually reads TB AVN 1, but that paragraph hasn't been changed since the 1958 printing of TB AVN 23-16 superseded TB AVN 1—and the 1958 version has now been superseded by the 1961 TB).

TB AVN 5 covers all form entries **other** than test flights. So as long as there're no discrepancies between the -2 entries required by the two TB's, just follow TB AVN 23-16 on test flight entries.

Windy Windsock

Dear Half-Mast,

Do you have any information on the authorization of safety seat belts for military sedans? The support unit for this organization said we'd have to get approval from Chief of Transportation under the provisions of Change 1 to AR 58-5, para 26.

Is this the only way out or do you have a short cut I can take?

SFC J. A. C.

Dear Sergeant J. A. C.,

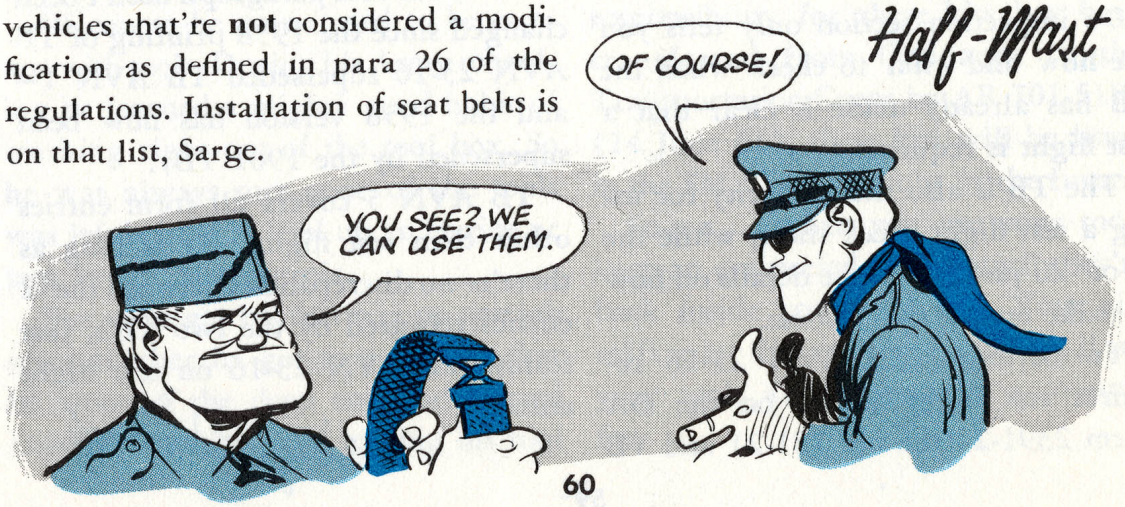
You already have Chief of Transportation's permission to install seat belts.

The authority is in a letter from TC ATM-FO (OC of T) to all major commanders on the subject of "**Modification and/or Conversion of Commercial Design Vehicles.**" The letter's dated 1 March 1961 and lists all the authorized changes to commercial-type vehicles that're **not** considered a modification as defined in para 26 of the regulations. Installation of seat belts is on that list, Sarge.

This leaves the decision to install 'em up to your local commander. His only consideration is whether the facilities and the money are available for the job.

For further info on these non-modification type of changes to commercial vehicles, your TC support outfit is the place to go. Your military sedans are off-the-shelf commercial jobs and strictly TC responsibility.

Half-Mast



A selected list of recent publications of interest to Organizational Maintenance Personnel. This is a list compiled from recent Adjutant General's Distribution Center Bulletins.

TECHNICAL MANUALS

TM 1-1H-19-1015 Oct H-19.
TM 1-1H-19-1020 Oct H-19.
TM 1-1H-23D-1006 Oct H-23.
TM 1-1H-23D-1026 Nov H-23.
TM 1-1H-23D-1029 Oct H-23.
TM 1-1H-23D-1030 Oct H-23.
TM 1-1L-26-17 Oct Storage.
TM 1-1U-1A-4-20P Oct U-1.
TM 3-6665-207-12 Sep Radioactive Source Set, M3.
TM 5-216 Sep Armored Vehicle, Launched Bridge.
TM 5-2330-203-15P Aug Trailer, Bolster, 2½ Ton, MIL-T-2451.
TM 5-3805-212-20P Sep Intrenching Mach Combat, Unit Rig Mod 4262.
TM 5-4320-216-15 Sep Pump, Cent Carver Mod 4WH15, 4WH15A.
TM 5-4520-206-25P Sep Heater, Duct Type, Portable: Hunter Mod UH48 DC.
TM 5-4610-203-12 Sep Water Purification Unit Van.
TM 5-6115-301-20 Aug Generator Set, 45 KW Hollingsworth Mod JHDX45A.
TM 9-1005-211-12P/2 Sep Cal .45 Auto Pistol M1911A1.
TM 9-1055-215-12 Sep 115-MM Mult Rkt Lchr M91.
TM 9-1375-203-12 Sep 10 Cap Hdl Oper Blasting Mach (Fidelity Electric Co, Inc, Std Mod).
TM 9-1410-250-20P/7 Sep Rep Parts and Spec Tool Lists for M6 Body Sect GM, Trg.
TM 9-1430-503-20P-1, -2 Sep Radar Set AN/MPQ-34 (XO-4) (Hawk).
TM 9-1440-500-20P-2, Sep Launcher, XM78E3, Pallet.
TM 9-2330-247-14, -24P Sep Chassis, Trailer: 3½ Ton 2 Wheel, M353.
TM 10-3930-206-20P C2, Oct MHE 124.
TM 10-3930-209-20P C1, Oct MHE 128.
TM 10-3930-211-20P C1, Sep MHE 157.
TM 10-3930-212-20P C2, Sep MHE 164.
TM 10-3930-218-10, C1, Oct Garwood Crane Attachment for MR-100 Rough Terrain.
TM 10-3930-218-25 C1, Oct MHE 174 & MHE 176.
TM 10-3930-219-20P C1, Oct MHE 169 & MHE 169A.
TM 10-3930-220-20P Sep 6000 lbs Towmotor MHE-159.
TM 10-3930-228-20P Aug Truck, Lift, Fork, Capacity 4000 Lbs.
TM 10-4930-204-10, -25P Aug Tank and Pump Unit, Liquid-Dispensing Truck Mounting.
TM 11-5805-223-20P Sep Telephone Terminal AN/TCC-3.
TM 11-5805-252-20P Sep Ringing Inverters TA-46/FT.
TM 11-5805-303-20P Sep Connecting and Switching Kit MX-155/GT.
TM 11-5805-307-20P Sep Converter M-222 and M-222A.
TM 11-5805-243-20P Sep Telephone Set TA-1/PT.
TM 11-5805-273-20P Aug Terminal, Telegraph AN/FGC-29.
TM 11-5815-270-20P Aug Rectifier RA-87 and RA-87A.
TM 11-5820-207-20P Sep Radio Receiving Set AN/URR-35C.
TM 11-5820-228-20P Sep Radio Receiver R-257/U.
TM 11-5820-292-20P Aug Radio Sets AN/PRC-8, 8A, 9, 9A, 10, and 10A.
TM 11-5820-467-25P Aug Antenna Group AN/GRA-50.
TM 11-5840-201-20P Aug Radar Set AN/FPS-36.
TM 11-5840-203-20P Sep Power Supplies PP-674/TPS-1D, and PP-674A/TPS-1D.
TM 11-5840-215-12 Sep Indicators, Azimuth and Range IP-345/TPS-1D and IP-406/FPS-36, Indicators, Azimuth and Range IP-345A/TPS-1D and IP-406A/FPS-36.
TM 11-5985-228-20P Antenna Assembly AS-341/GR.
TM 11-5985-231-20P Aug Antenna Group AN/GRA-4.
TM 11-6760-213-20P Sep Flash Unit, Photographic Repeating LM-33(1).
TM 11-6115-227-15P Sep Operator Sets, Gasoline Engine, Trailer Mounted PU-375/G and PU-375A/G.
TM 11-6115-228-15P Sep Generator Sets, Gasoline Engine, Trailer Mounted PU-253/U and PU-253A/U.
TM 11-6125-214-20P Sep Motor Generator PU-143/U, PU-143A/U, PU-143B/U, PU-143D/U, PU-143E/U, Rotary Converter PU-134/U, PU-140A/U, PU-141A/U, PU-141B/U.
TM 11-6625-250-20P Sep Signal Generator SG-15/PCM and SG-15A/PCM.
TM 11-6625-399-12 Aug Generator Signal SG-298/U.
TM 11-6720-206-20P Sep Radiac Set AN/PDR-39.
TM 11-6720-215-20 Aug Camera Set, Still Picture KS-7A.
TM 11-6740-206-20P Sep Radiac Calibrator TS-784/PD.
TM 11-6740-221-20P Sep Rewinder, Photographic Film FM-2(1), FM-2(2), FM-2(3).
TM 11-6740-222-20P Sep Print Straightener FM-105 and PH-146.
TM 11-6740-238-20P Sep Printers PH-129-B, PH-639/TF and Printers, Projection Photographic EN-7(1), EN-18(1), and EN-18A1.
TM 11-6760-210-12P Sep Lamp Equipment PH-219, PH-219-A and PH-219-B.
TM 55-1520-205-10 Aug H-21.
TM 55-2220-203-20P Sep Rail Car, Ambulance, 56½ In Gage, St. Louis Car Co Lot 1771 USA Road Numbers 89506 thru 89568.
TM 55-4920-203-15 Sep General.
TM 55-4920-205-15 Sep General.
TM 55-4920-210-15 Sep General.
TM 55-4920-212-15 Sep General.
TM 55-4920-213-15 Sep General.

TECHNICAL BULLETINS

TB 9-1000-224-20 Oct Excessive Oil Leakage for Hydro-Spring-Type Recoil Mechanism.
TB 55-1 Sep Transportability Guidance Truck, 5 Ton, M52.
TB 55-2 Sep Transportability Guidance Truck, Gasoline, 2½ Ton, M217.
TB AVN 23-5-1, C8 Oct General.
TB AVN 23-52 Oct HU-1.
TB AVN 24-17 Sep General.

LUBRICATION ORDERS

LO 3-4240-207-12 Aug Filter Unit, Gas-Part, GED, ABC-M6.
LO 9-5058-12 Sep 5-Ton X Trk-Mtd Serv Platform M28OE1.
LO 10-3930-407-20 Jul 4,000 lbs Drawbar Pull MHE 172.
LO 55-1925-201-12 Sep Tug, 45 Ft. Design 320.
LO 55-1925-201-12/1 Aug LCM-8.
LO 55-2210-203-20 Aug Loco Dsl-Elec 56/2, 60, 63 & 66-In Gages.
LO 55-2210-216-20 Aug Loco, Dsl-Elect 56½, 60, 63, 66-In Gages, 120 Ton, American & GE models.
LO 55-2220-203-20 Aug Rail Car, Ambulance 56½-In Gage 6 Whl, St. Louis Car Co.
LO 55-3950-211-12 Aug Windlass, Horizontal, Elect Motor-Driven Hyde Model No. 5.
LO 55-2210-218-20 Sep Loco Disl-Elect 56½-In Gage 23 and 25 Ton Cummins H B 1-600, 150 HP (Ge Elect Co).

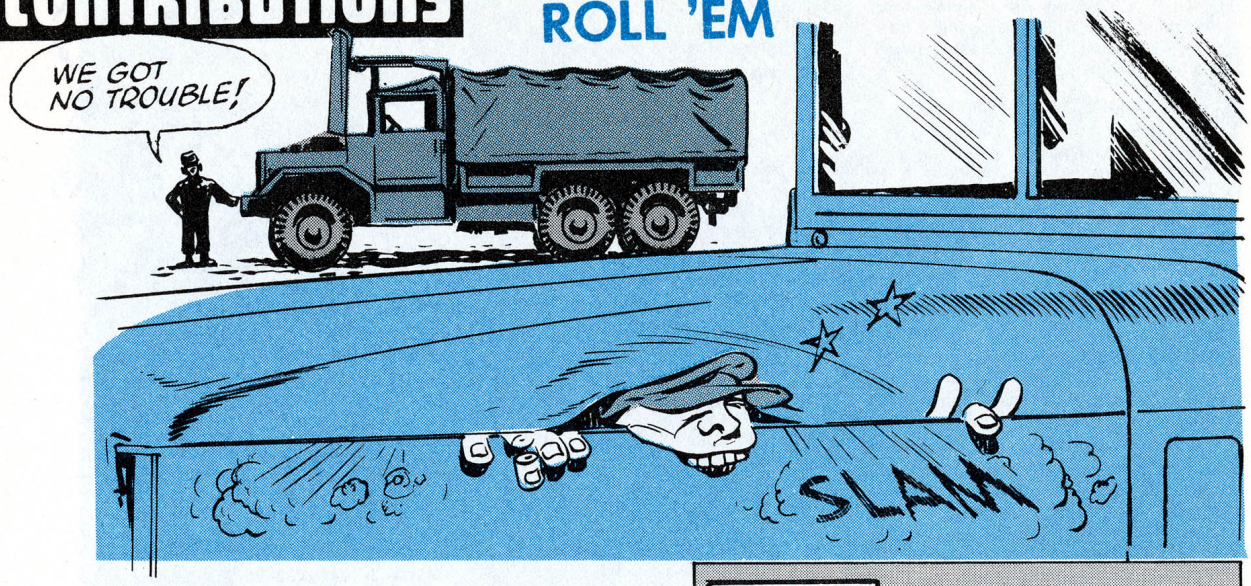
MODIFICATION WORK ORDERS

MWO 3-4240-233-25/1 Sep Mod of Breathing Apparatus Oxygen Gen, M13.
MWO 5-4210-202-35/1 Sep Truck, Fire Fighting, 1500 GPM Walter Motor Truck Model MF.
MWO 9-1430-400-12/3 Oct Frequency Calibrator Set 8900910 (LaCrosse Fld Arty GM Sys).
MWO 9-1450-500-20/7 Oct Load-Trans GM: XM501E2 Hawk GM Sys: Reloc Main Sup Housing Dummy Receptacle.
MWO 9-1550-200-20/1 Oct Univ Starter Cart Assy RPES-3A: Removal of Unnec Parts and Mod of Framework (Tar Msl Sys OQ-19B and OQ-19D).
MWO 9-2300-224-20/2, /3 Oct Carrier, Personnel, M113.
MWO 9-2320-211-20/4 Oct Truck, 5-Ton, M62 and M246: Instn of Saf Ret Clip on Outrigger Tube Lkg Pin.
MWO 9-2320-218-20/1 Sep Truck, ¼ Ton, M151: Removal of Starter Bracket from Clutch Pedal.
MWO 9-4935-253-20/2 Oct GM T/S 9025325 and 9025327 and Transponder Cont T/S Grp 9007904: Rplt of Diodes in T Cont U.
MWO 55-1510-202-20/2 Oct L-19.
MWO 55-1510-202-34/5 Oct H-19.
MWO 55-1510-204-34/13 Nov AO-1.
MWO 55-1510-204-34/16 Oct AO-1.
MWO 55-1510-206-34/1, /3 Oct AC-1.
MWO 55-1520-203-34/1, /2 Oct H-37.
MWO 55-1520-207-20/29 Oct HU-1.
MWO 55-1520-207-20/34 Nov HU-1.
MWO 55-1520-207-34/15 Oct HU-1.
MWO 55-1520-207-34/28 Oct HU-1.
MWO 55-1520-207-34/35 HU-1.
MWO 55-6930-200-34/1 Oct General.

MISCELLANEOUS

AR 700-9100-2 Oct Quality Surveillance Petroleum Products.
FM 3-5 Sep CBR Operations.
FM 21-15 Aug Care and Use of Individual Clothing and Equipment.
SM 55-4-4920-537 Sep A/C Shopset C3.
SB 1-1 Oct General.
SB 9-204 Oct Ord Vehicles: Rep of Veh Data Plates.

CONTRIBUTIONS



Dear Editor,

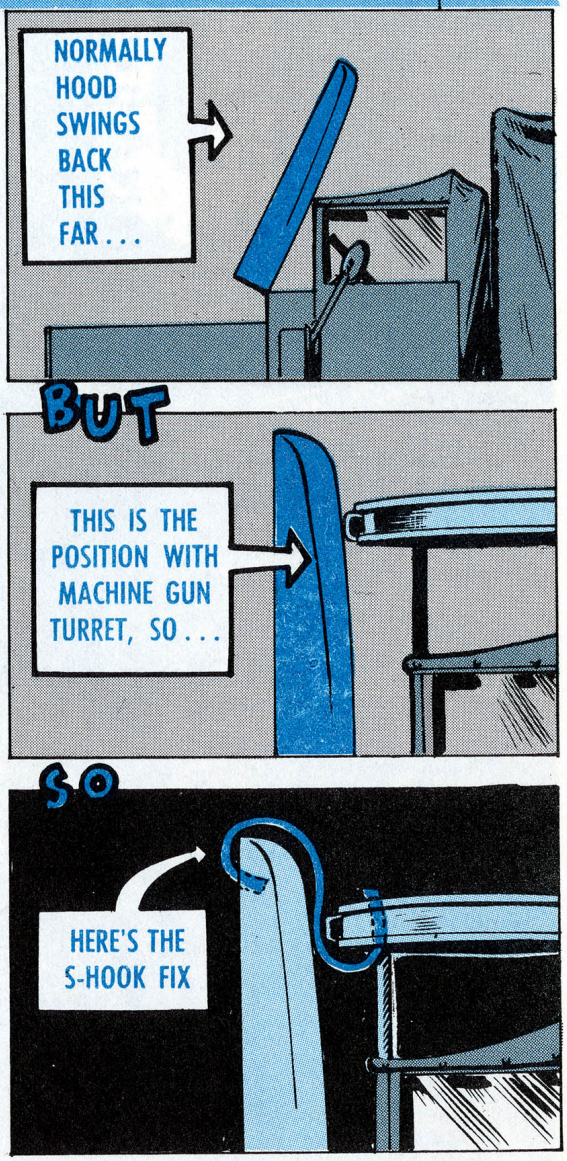
Have you noticed? A truck that mounts a machine gun turret has the makings of a dandy head chopper.

With the front section of the mount extending out as it does, a raised hood is held almost straight up in the air. This makes the regular hood hold-up rod useless, with no other way provided to hold the hood up when it's raised.

Now, you can see what'll happen with that hood standing straight up. A gust of wind or the vehicle moves a bit and some poor guy may find his carburetor stuffed up with his noggin. After we had a serious hand injury here in our outfit, we fixed our flapping lids. All we did was make an "S" hook out of some rod stock.

When we go to put up our hoods, we take the S-hook, which we keep in the glove compartment. One end of the hook wraps around the hood's edge—the other end is hooked on the machine gun mount. Knocked!

Francis Parrish
Aberdeen Proving Ground, Md.



A PURER CURE

Dear Editor,

I just saw an old issue (PS 75) where you talk about the burn out method for curing battery carrier corrosion. A few years ago we experimented with another method and found it to be superior.

We used a cutoff 50-gallon drum, about 18 inches high, as a tank and kept a solution of water and bicarbonate of soda in it. We requisitioned the soda thru Chemical Corps channels, mixing three pounds in 12 inches of water.

When we found a carrier corroding, we took it off and dropped it into the solution for about 10 or 15 minutes. After drying and repainting, it was rare to have a recurrence of corrosion from the old acid on the carrier. We used to make a new batch each week.

In addition, we found the solution very handy from a safety point. If anybody got acid on his clothes or skin, we would soak it down with the solution immediately, neutralizing the acid action. We also kept a glass jug of the solution available for anybody who might get splashed in the eyes with acid.

Another way we used the soda solution was to neutralize any acid drip corrosion found in the engine compartment —on the fire wall and wires or hoses—so that the coverings of these items would be safeguarded.

While this soda solution method may not be handy when on the move, or under field conditions, I recommend it highly wherever shop conditions exist. I believe any installation safety officer will go along with this method.

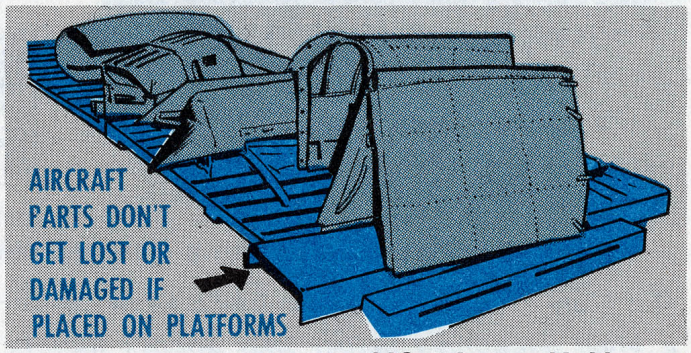
Sgt. John C. Foley
Baltimore, Md.

(Ed Note—Great idea for shop people. That glass jug's a good idea, too — but make a fresh batch occasionally. And when any acid splashes in the eyes, better follow the water and soda solution with straight water for at least a half hour— then see the medics.)

RACK 'EM UP

Dear Editor,

Haven't misplaced a panel or stepped on a cowling since we started using a cowling rack. It's just a few wood pallets sitting side by side next to the aircraft. We're even thinkink of making them into dollies by adding casters to the pallets.



MSgt James H. Marcus
Miller Fld., S. I., N. Y.

(Ed Note—Sounds perfect for keeping a neat work area and preventing barked shins.)

WHEELIN' DEAL

Dear Editor,

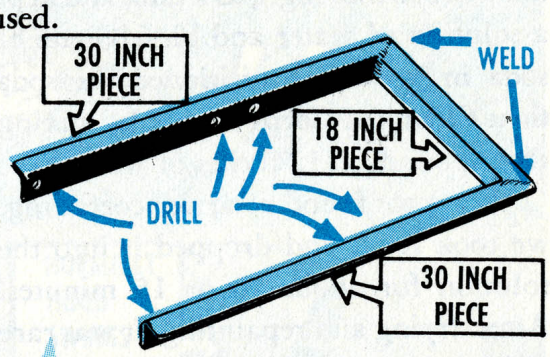
Anyone who has ever wheel-barrowed one of these 500-lb (approx) E-APU's (FSN 2805-511-2210) from hangar to flight line knows it's no easy push—might even strain a gut in the act.

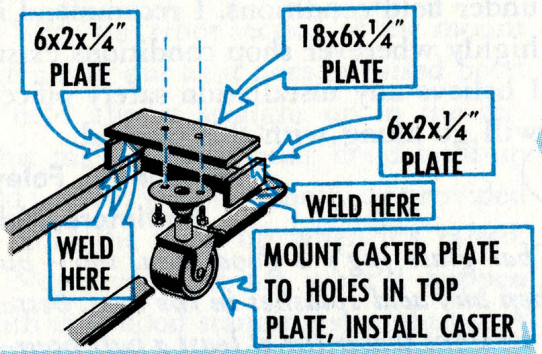
We made 'em much easier to handle by adding a front wheel and a handle on 'em. Now, a tug can tow 'em across the field.

We put the wheel assembly on without modifying the APU one least bit. Existing bolts and holes and scrap parts were used.

First cut three pieces of 1½-in scrap channel iron. Cut two of them 30 inches long and the other 18 inches long.

Weld the 18-incher flush to two of the ends of the two 30-in pieces, and mark and drill holes in the channel sides to mate with the APU side frame rails.





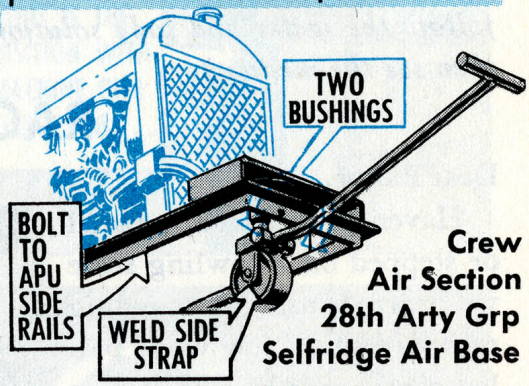
Pick up a piece of 18-in x 6-in x ¼-in steel plate and two pieces of 6-in x 2-in x ¼-in plate. Weld one 6-in plate on each side of the 18-in plate. Now weld these to the top front end of the channel iron rails.

Next scrounge around till you find a 6-in caster (other size may work) with wheel assembly. Center and drill holes thru the 18-in plate and bolt the caster in place.

Make or dig up a handle and weld a "T" on the end of it.

Weld a bushing with a diameter large enough to take the "T" on the end of two pieces of strap iron that're 6-in x 1-in x ¼-in.

Put the "T" in the two bushings and weld the strap iron (one on each side of the wheel) to the caster assembly.

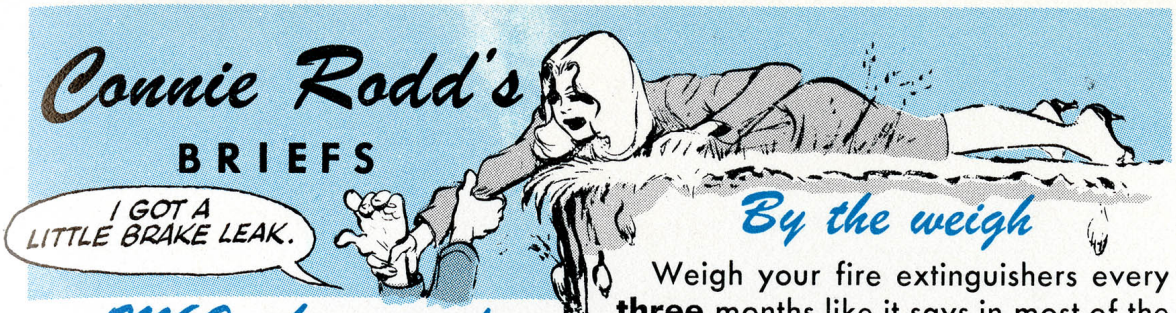


Crew
Air Section
28th Arty Grp
Selfridge Air Base

This simple idea saves a man a lotta gruntin' and works wonderful.

(Ed Note—Good idea. Looks like a work saver—no more broken backs. This is a good temporary helper that doesn't modify the basic design of your APU—sort of a dolly. There's an engineering study under way that may give you a kit later on to make a permanent change in the chassis of this important little item.)

Connie Rodd's BRIEFS



M60 phone cord

Some of the early M60 tanks had a 5-ft coiled cord for the outside phone. If you got one of these shortie cords, get your direct support unit to apply MWO 11-5830-218-35/1 (June 61). They'll give you a new handset — H-165/U instead of H-60/PT—and a cord that'll stretch to over 10 feet. Check your handset. If it has a H-60/PT label on it, it's the wrong one.

Missile pubs—direct

Distribution of missile publications **direct** to the firing unit from the publications center started in January. If your outfit has missiles, fill out DA Form 12-32 (1 Oct 61) and shoot it in today to USA AG Publications Center, 1655 Woodson Road, St. Louis 14, Mo. The form tells St. Louis exactly how many copies of which missile pubs to send your outfit—direct. DA Circular 310-61 (2 Oct 61) gives the green light.

LO key in new TB

Hold it! Don't pour nary an ounce of oil in **any** of your tank (M60 etc.) Continental air cooled engines, till you lube men've checked out the latest poop in TB ORD 694 (19 Oct 61).

Here's why: The oil selection key for all these tank engine LO's is now changed to read like this . . . Above +60°F use OE 50; +32°F to +90°F use OE 30; —10°F to +40°F use OE 10; and 0°F to —65°F use OES. Pay particular attention to the note in the TB, it's important.

By the weigh

Weigh your fire extinguishers every **three** months like it says in most of the combat vehicle TM's. In the past, you've seen it say every four months but that info is out of date. By the weigh, treat a loaded extinguisher as gently as a loaded shell . . . it's dangerous. Don't drop, jar or bump it.

Switch saver

Has a copy of MWO 9-1450-500-20/6 shown up in your Hawk outfit? The MWO, dated 13 September 1961, is an urgent one telling you how to put a shield on certain serial-numbered XM501E1 and XM501E2 loader-transporters. The shield protects the bare-faced micro limit switch on the link assembly.

Check that MG

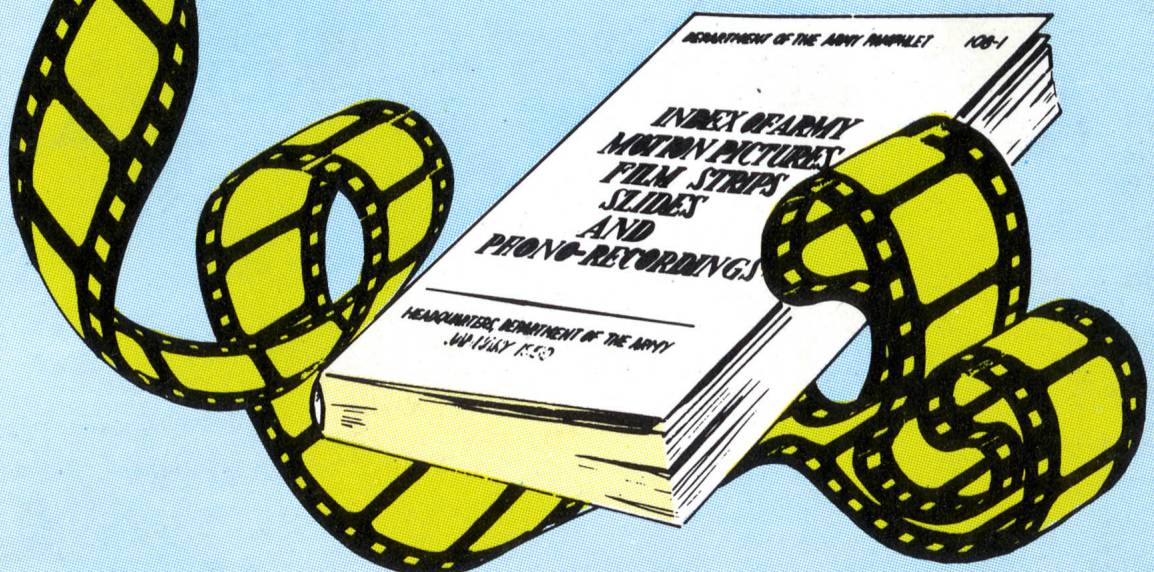
Take time out and check the headspace and timing on your .50 cal machine gun just before you start spitting lead again on the firing range. Some guys are skipping this check and paying for it with a long ride on the sick book and a battered weapon. FM 23-65 gives you all the scoop you'll need to get headspacing right.

Open that cover

The latest scoop on loading the M60 machine gun is that only the "open cover, safety on" method spelled out in TM 9-1005-224-12 and FM 23-67 will be used. FM 23-67 also describes a closed cover deal for loading. This closed cover way has been found too dangerous to monkey with—so please, don't use it.

Would You Stake Your Life on the Condition of Your Equipment?

See The MOVIE too!

ON OPERATION AND MAINTENANCE OF YOUR EQUIPMENT

Check the Index—DA Pamphlet 108-1 lists Moving Pictures, Film Strips, Slides, Phono-Recordings that you can get from Army Film and Equipment Exchanges.